Lecture
ON THE
CLASSIFICATION OF DISEASES OF THE NERVOUS SYSTEM.

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In the present state of knowledge all systems of classification are but tentative, and that which I am about to propose is no exception to the rule. Until our acquaintance with facts is co-extensive with the facts themselves the methods which we may adopt for their arrangement, and the names by which we may describe them, must be faulty. But there is, I think, no process by which we can make greater advances in knowledge than by the attempt to classify; for, in such attempt, we not only recognise and test the successful results of some of our scientific labour, but we examine its failure to embrace all the phenomena with which it has to deal, or to comprehend and express their relations. We gain some ground, and that is of obvious value: but we do much more than that; we recognise our ignorance of much that seems familiar, point out the direction in which further work is needed, and suggest some tracks along which such further work may run. In the classification which I am about to propose to you it is not my wish that you should rest; my hope is that it may make you work, and work successfully—move onwards, and in the right direction.

The "nervous system" is the most complicated of all systems,—the highest in organisation, the most varied in its relationships. Into its composition enter, not only nervous elements, but vessels of all kinds, and connective tissue, either of which may be the starting-point of morbid process. It furnishes the links of association between all the diverse organs of the body, and is thus often wearied and worn by its work of communication among them. It is exposed to the direct influence of impressions from external forces, such as light, heat, and electricity, in a manner and to a degree unequalled by other systems: it penetrates every organ, and is inter-penetrated by other tissues than its own. Hence it has not only its own diseases to prevent, but it shares in the maladies of every other system, and often is the most innocent of disease when the most severely blamed.

Many of its diseases or disturbances have their starting-point elsewhere than in itself; some of its intrinsic changes are latent, or are displayed only in the derangements of function of other organs or systems; and thus it is very hard to arrange, in any complete manner, the facts which I wish to bring before you. But I shall endeavour so to place them that you may find help in your clinical work of diagnosis and of treatment.

Diseases and derangements of the nervous system may be, I think, for the present placed in the following eight groups:—

I. General, or hæmic.
II. Exhaustion-results, from overwork.
III. Physical disturbances.
IV. Vaso-motor derangements.
V. Vascular nutrition-changes.
VI. Primary trophic changes in nervous tissue.
VII. Growths, and infiltrations.
VIII. Dynamic, or functional diseases.

I. Those in which the nervous affection is due to some general condition of the body; with frequent relation to the quantity and quality of blood-supply; but without any primary alteration in the nutrition of nerve tissue and without any direct evidence of change in the local distribution of blood, resulting from vaso-motor disease. The nervous system itself may be healthy, but it is deranged by influences outside itself, but having their starting-point in the organism.

In this first group, which I would call "general," or "hæmic," are placed:—

A. Anæmia, or deficiency of blood in the nervous system, from failure of the heart; resulting in "shock," "collapse," "syncope," "faintings." These enter into the clinical history of many complicated affections, such as mechanical injuries, insolation, apoplectic attacks, and the like; but they may exist alone, and often puzzle the physician who has to discover whether they are due to cardiac, nervous, or general conditions.

B. Spanæmia, an altered quality of blood; without the introduction of any new element, and without obvious cardiac failure. This spanæmic state is, of itself, capable of producing great disturbance of the nervous functions.

1. In the extremities—muscular weakness, amounting to partial paralyses, called sometimes "chlorotic paralysis."
2. In the sensory organs, leading to "tinnitus aurium," "muscæ volitantes," and various "paræsthesiæ."
3. In the spinal cord, inducing many, if not all, of the phenomena of so-called "spinal irritation," and in conjunction with paralysis.
4. In the brain, showing itself by diminished power of attention, faulty memory, incapacity for mental work, frequent but irregular insomnia, with depression of spirits and irritability of temper. This condition is familiar enough to the practical physician, but I do not know that he has, hitherto, invented a name by which accurately to describe its presence.

C. Hyperæmia, general—i. e., not exclusively exhibited in the nervous system, but affecting the whole body. There is the full habit of body, "fulness of blood," with diminished tension of vessel. This condition runs into those of disturbance from localised change in bloodvessels; but it may exist apart from such localisation, and it is shown in more or less frequent derangements of function—e. g.:

1. In the nerves—paræsthesiæ, "tingling," "numbness," and the like.
2. In the spinal cord, with the symptoms of "spinal congestion."
3. In the brain, with the history of "cerebral congestion" in its several clinical forms, to be hereafter described.
4. In the special senses, showing itself by "tinnitus aurium" (occurring under circumstances different from those I mentioned a few moments ago), by "muscæ volitantes," "temporary hemiopia," and other changes of vision.

D. Toxæmia, general, varying in origin; sometimes due to poisons, or toxic influences introduced from without, sometimes due to poisons developed within the body, by mal-assimilation, defective secretion, or impeded excretion. This group is a large one, and its phenomena vary widely, and yet there are many points in which its several members resemble one another. For example:—

1. In pyrexia, there are many "nervous" symptoms, common to almost all its phases and sources of origin—headache, backache, sense of lassitude, vomiting, rigor, convulsion, delirium, &c.; but it is well known that the pyrexia of toxic origin generally produces a much more profound effect upon the nervous system than does that which is due to the atoxic inflammation of internal organs.
2. Alcoholism, in its acute form of so-called "delirium tremens," or in its chronic forms; together with "oinomania," "tremors," &c.; and its causative relation to insanity, paralyses, and other maladies, the result of induced trophic change.
3. Mercurial poisoning; tremors and paralysis.
4. Lead, or saturnine poisoning—"lead colic," and "lead palsy"; and here I shall allude to the special effects of the "gouty habit" in developing the effects of lead, and *vice versâ*.
5. Arsenical poisoning, in its chronic form.
6. Uræmia, in its chronic and acute forms, the result of "morbus Brightii" or of mechanical retention; "uræmic convulsions" and "coma"; the "renal epilepsy" of Todd; "uræmic amaurosis," and deafness. It is probable that, as Walshe suggested, other poisons than that of urea may, when retained in the blood, produce symptoms which vary the clinical history of cases of both acute and chronic uræmia.
7. Cholæmia, and allied disturbances of the nervous system, which arise during the course of chronic as well as of acute diseases of the liver, either impeding the exit or preventing the secretion of bile.

8. Diabetes: its general history of nervous derangement, and its special terminal features in coma or convulsion. Here I do not refer to the causation of mellituria by injury or disease of the floor of the fourth ventricle, but simply to the after-effects of the blood-poison upon the nervous centres.

9. Chorea, in its common and acute form, bears such close and frequent relations to rheumatism, scarlet fever, pericarditis, and anæmia, that what I have to say about that malady I shall introduce into this section of nervous diseases, the result of toxæmia.

10. Syphilis may properly be regarded as a toxic state; but its symptoms are so generally related to localised change of the meninges or nerve-centres that, although I mention it here, I shall defer what I have to say of the detail of its symptoms until the lectures on meningitis, cerebral and spinal.

The next group of diseases or derangements is referable to—

II. Exhaustion, or fatigue of the nervous system, the result of overwork. There is, in the production of such maladies, a want of due relation between work and rest, often complicated by a deficiency of food. Overwork may be due to prolongation of the time of work, or to excess of energy in its performance. We have therefore to deal with "fatigue" and "strain." It often happens that such extra exertion—the result of will acting under the motive of circumstances—deprives men of sleep, impairs appetite, leads to excess of alcoholic stimulation, and thus not only aggravates but complicates the condition of fatigue. We observe its phenomena in—

A. Nerve and muscle, which become exhausted and temporarily paralysed. Violent exertion of the arm, for example, in raising heavy bodies, or in maintaining a medium amount of action for a long time, is followed by loss of power for executing movements that require fine adjustment. It is possible that some forms of so-called "scrivener's palsy" would fall into this category; but my own experience has led me to think that this affection and those which are akin to it most frequently occur in those who have performed no excessive action of the muscles that are found to be involved.

B. The muscles of special sense may be exhausted to such degree by prolonged or violent exertion that they fail, for a time, to appreciate their normal stimuli or do their proper work. The eye may be so far tired by a strong light, or by concentrated effort to see minute objects, or by some other exertion, that it fails to see distinctly. "Spectra," of complementary colours, occur, in the state of fatigue, with abnormal readiness; and analogous conditions of the auditory apparatus are not unfamiliar. The din of a power-loom, in a large factory, will make some people temporarily deaf. A mouthful of strong peppermint-water, retained for a few seconds, will so far exhaust the gustatory sense that cod-liver oil may seem quite tasteless.

C. The spinal cord may be exhausted by over-exertion, and both its conductive and reflex functions injured. We meet with incomplete "paraplegia" from over-walking, climbing, or running; and very often with "impotence," and weakness of the lower limbs, as the result of over-action of the sexual organs.

D. The brain is often wearied and rendered powerless by overwork; and the physician meets, daily, with cases in which "there is no disease," as the phrase so glibly runs, but in which there is, very obviously, the greatest distress. Inaptitude for work or rest; depression of spirits, with irritability of temper; a sense of weariness and hopelessness; frequent disturbance of the general health; the digestion fails, the secretions are disturbed, and the man "breaks down." He is "tired," and what he wants is "rest."

The next group of derangements of the nervous system is due to—

III. Simple physical impressions, such as may be inflicted by blows, by electrical conditions, or by exposure to the sun. These act in a manner that we do not fully comprehend, but we may see some analogy to their mode of operation in the physical world. A steel magnet may have its magnetic properties "knocked out of it," as it were, by a blow from a sledge-hammer. A nerve, a spine, or a brain, may have its functions destroyed by a violent shock. The steel bar may look as it did before the blow; the brain may appear healthy on post-mortem examination: but the injury has driven the magnetic properties from the one, and the vital functions from the other. Under this heading, therefore, we have—

A. Concussion, or physical shock; often accompanied by mental and moral commotion—the one intensifying the other.

1. Concussion of nerve and muscle, leading to paralysis, anæsthesia, and pain.

2. "Spinal concussion": a very rare event, and accompanied by a set of symptoms very unlike those which we so often have recounted in the trials for compensation after railway injuries; many of them being examples of strain or wrench to the spinal column, with its subsequent effects; many of them being illustrations of emotional shock; not a few the result of ideal disturbances; and certainly very many the creation of medico-legal methods of procedure.

3. The organs of special sense may be damaged in like manner, and their derangements run into those of the preceding category, but sometimes are not to be explained by the mere fact of fatigue. Permanent deafness has been caused by a tremendous noise; a violent "box on the ear" has sometimes damaged the machinery of audition; and the results of contusion of the eyeball are, unfortunately, only too well known.

4. "Concussion of the brain." This is to be, hereafter, carefully distinguished from the effects of "concussion" of the bone or membranes, and the ulterior symptoms that may follow upon such injuries. The word "concussion" has been, unfortunately, used in a wrong sense; a certain set of symptoms has been said to be characteristic of "concussion," and a man has been said to suffer from concussion only when he presents those symptoms. But it is obvious that the line encircling this group of symptoms is an artificial one, and has been drawn in a most arbitrary manner. "Concussion of the brain" is a physical fact, not a set of symptoms; and it occurs whenever the skull is so knocked or concussed—by a box on the ear, a fall on the feet or on the head—that the individual feels, even for a moment, confused, weakened, bewildered, faint, sick, blind, stunned, or otherwise generally disturbed. The degree of concussion and the effects of such concussion vary widely; and it is as absurd to limit the use of the word to one high degree of symptomatic disturbance as it is to use an expression, which has unjustly acquired so grave a significance, to every trifling injury. Remember, then, that "concussion of the brain" is a physical fact, followed by a variety of symptoms, and not any one set of symptoms described in books of surgery or medicine. I make special comment upon this point here because "concussion" is one of the words that very frequently appear in scientific and unscientific evidence in courts of law. In the same way the word "paralysis" has been used and abused; one witness meaning, and properly, by that term loss of power to execute voluntary movements, and another urging that loss of power was not paralysis, but that "paralysis was an organic affection of the brain or spinal cord." What can be expected of the jury or the counsel when members of our own profession use the same common words with such totally different meanings.

B. Electrical injuries.

1. Nerves and muscles may be rendered useless, and certain tremulous or spasmodic movements may be set up in them, by excessive faradisation.

2. The special senses, and especially the sense of sight, has been injured by electrical appliances. Amaurosis has followed upon vivid lightning, even when the individual has not been "struck," and has not looked at the storm.

3. On the spinal cord the effects of electric shock are not so well known as are those—

4. On the brain, where arrest of function is not uncommon in certain people, and grave disturbance of function is very frequent. The condition that precedes storms, as well as that which accompanies them, requires further investigation.

C. Insolation. The effects of so-called "sunstroke" are sometimes "general," and then probably produced through the sensory nerves upon the heart, leading to collapse, which may be fatal; but they are sometimes "localised," particular portions of the nervous system, the cerebral functions and special senses, being prominently or exclusively affected.

IV. The next group of diseases is a large one, and of great importance from the frequency with which its several members present themselves in practice. I refer to th

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disturbances of nerve-function which are directly due to localised changes in the blood-supply, the result of vaso-motor irregularity. The phenomena are, in their essence, those of anæmia or hyperæmia, and often of the one in succession to the other. They so far resemble the first group; but they differ from them in this, that in the first group the nervous system was deranged as part of a general condition, or from the blood being "cut off at the main"; whereas in this fourth group the supply is arrested or diminished at the periphery.

Into the production of these diseases two factors enter; the first is the state, original or acquired, of the vaso-motor centres of nerve action; the second, the force or continuance of impressions which may be made upon those centres from outside. Sometimes the one element preponderates or exists alone; sometimes the other; but often the two concur. The general characters of the symptoms are suddenness of onset and comparatively short duration; the symptoms themselves being habitually those of diminished function, followed by increased or altered function; chronicity, or marked tendency to recurrence.

A. Vaso-motor anæmia may affect the extremities, or the centres of nerve action. There may be pallor of the face as well as of the pia mater.

1. In the extremities, the fingers, hands, or feet, there occur, very frequently, obscure sensations of discomfort, "numbness," "formication," "deadness," "coldness," "weight," and the like, which are due entirely to disturbances of the local circulation from vaso-motor influences. Such local variations of the blood-supply may be observed by the hand and by the eye. They are often supposed to express some central change, and thus become the occasions of much unnecessary alarm; but our grandfathers in physic often recognised their etiology, although they did not understand their pathology, when they, somewhat at haphazard, referred them to gout, stomach, liver, or digestion.

2. In the organs of special sense similar disturbances occur; and "temporary amaurosis," or so-called "epilepsy of the retina," or sudden "deafness," may be the symptoms that display their presence.

3. The spinal cord may be temporarily anæmiated, and sudden failure of power in the lower limbs is the result: the patient falls, from absolute collapse of the leg-muscles, but without pain, or disturbance of consciousness. Sometimes convulsive movements follow, and the attacks have been called "abortive" or "irregular" epilepsy. The condition is one of "spinal epilepsy" in the true sense of the term, a "petit mal" of the medulla spinalis, or a "reflex paralysis"; and it differs widely from the state to which that latter term has been frequently applied. A true reflex action is always of the nature of a "shock"; it is sudden and of short duration; and therefore it is incorrect to apply the term "reflex paralysis" to those cases of paraplegia where the symptoms come on gradually, persist for weeks, and depend upon some urethral, uterine, ovarian, or rectal disease. Such affections are due to an induced change in the nutrition of the cord; they are not the expression of its reflex action. True reflex spinal paralysis is seen, again, sometimes in sudden "relaxation of the sphincters," the result of external impressions, physical injuries, with or without mental or moral shock. Cases of this kind sometime run on into epilepsy proper, but the symptoms may remain or recur for many years, and yet never spread to the brain.

4. Vaso-motor anæmia of brain exhibits itself in three groups of forms—namely, (1) "epilepsy"; (2) "eclampsy," or "convulsions"; and (3) "paroxysmal apoplexy," "aphasia," or "paralysis." These affections run into one another, and really compose one large group, as which they should be regarded. The differences between the members of this group are those of degree and distribution, and not those of kind. The essential fact is this, that there occurs from time to time a sudden but temporary diminution or arrest of one, two, three, or all the functions of the brain. The arrest is, in some cases, followed by spasmodic contraction of muscles in the neck, face, thorax, abdomen, or limbs; usually first tonic and then clonic, and often associated with venous stasis and asphyxia. From the momentary forgetfulness of a word, or an instantaneous blank in the processes of thought, to the most violent epileptic convulsion that the body can exhibit, there is every grade and variety of seizure; and I do not think that any line, truly scientific in its character, can be drawn between them. I mean of course any line which should convey the idea that the patients on its one side differ materially, or in kind, from those on the other.

There are, as I have already said, two factors in the production of these attacks—one is the presence of a something making an undue impression upon an afferent nerve, an "irritation" as we call it, which may be in gums or intestines, in ovary or rectum; and the other is an over-readiness of disturbance in the centre of vaso-motor nerves. When the former is in excess, and there is a certain history and grouping of symptoms, the cases are regarded as "eclamptic"; when no such external causation can be discovered, and there is a somewhat different arrangement of the phenomena, the patient is described as "epileptic." But epilepsy often has its starting-point in external irritations; in eclampsy it is often difficult to find them. There must be something not quite right in the nervous system of a child that shall throw it into a fit at the cutting of every tooth; and this something is that which constitutes the essential fact of epilepsy, and which in the latter affection is sufficiently developed to cause an explosion without any apparent disturbance from outside.

B. Vaso-motor hyperæmia occurs often as the sequel of vaso-motor anæmia from spasm, but it frequently exists independently of any previous contraction. There is a paralytic condition of the vessel, a fulness of the capillary plexus, and often an excess of secretion. These phenomena occur in association with disturbance of the general health or of the special functions, are recurrent in time, and temporary in duration. Although related to influences outside the nervous system, and acting through it upon the vessels, they have not the abruptness nor the transitoriness of reflex action and spasmodic contraction. They result from exhaustion, are gradually induced, and slowly pass away.

1. In the skin, the "blushing and "flushing" that occur at the climacteric period are familiar illustrations, and this may sometimes be preceded by spasm and a sense of chill, with pallor, and followed by profuse perspiration; but sometimes the flush exists alone. Redness of the face or of the nose alone during digestion is another illustration of a like condition.

2. The special senses are affected in like manner when "tinnitus aurium" occurs on exertion or on stooping, or "vertigo" and "flashes of light" before the eyes happen under similar circumstances.

3. Special hyperæmia may be of temporary duration, and is seen especially upon arising from the recumbent posture after prolonged exertion. It is a definite condition, and may recur for months or years in such fashion as to prove its dynamic character; but it may pass on into permanent malnutrition of the cord, and thus show the importance of its recognition.

4. Cerebral hyperæmia of the kind here intended is, unfortunately, but too familiar. The symptoms occur after eating, during sleep, upon stooping or lying down, upon straining the respiratory muscles, as in coughing, sneezing, or defecation, and they vary from transient vertigo, dull headache, and feeling of confusion, to the apoplectic attack or "coup de sang." When speaking to you upon cerebral congestion in particular, I shall classify the cases in a manner in which it is not necessary for me now to enter; but bear in mind at present that here I am alluding only to such forms of cerebral hyperæmia as occur dynamically, independently of organic vascular disease, and which have often been denominated "determination of blood to the head."

V. This group of diseases depends upon nutrition-changes in the vascular system generally; in that of the nervous centres especially; and in the immediately surrounding tissues. It includes inflammation, hæmorrhage, thrombosis, and embolism. The prominent effects of the first three are due to changes occurring in and around the vessels of the nerve-centres or trunks; those of the last, embolism, may be due to disease at the centre of the vascular apparatus, or in some remote portion of the vascular system. There may be the coexistence of the two elements of disturbance.

A. Inflammation may affect either the proper nerve, or medullary, or cerebral substance; or it may be originated and prominently developed in their coverings, the neurilemma, or the meninges of spinal cord or brain.

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Clinical experience teaches us that both elements are most frequently involved in acute cases; that in chronic cases they are often affected individually; but that the prevailing fact is that inflammatory change extends from one to the other.

Speaking generally, it may be said that the symptoms are, at the onset, those of exaggerated functional activity; the final symptoms are those of diminished or annihilated function; and that there is a more or less marked period in which the phenomena are a mixture of the two extremes.

Thus it has become common to speak of a first, second, and third "stage" in these affections, the value of which I shall discuss when dealing with them individually. Another generally observed fact to which I direct your attention now is this, that the pyrexial condition is often very feebly marked, and that it has a history of its own, unlike, in many respects, that which accompanies inflammatory change in other organs or systems of organs.

1. Neuritis, either from injury or constitutional disease.
2. Spinal inflammation, including—
a. Spinal meningitis, which may be "acute" or "chronic," and either "toxæmic," "traumatic," or "idiopathic."
b. Myelitis, "chronic" or "acute," and when the latter is usually complicated with meningitis.
3. Inflammatory disease of the organs of "special sense," of which "retinitis" affords the most frequent and interesting example, but of which "otitis" is another unfortunate illustration.
4. Inflammation in the encephalon, including
a. Meningitis in its acute and chronic forms, either of which may be "simple," "traumatic," or "complicated," the most frequent complications being those of "tubercle" and "syphilis."
b. Cerebritis, a rare affection, except in combination with meningitic change, &c.
c. Cerebral abscess, the clinical history of which is very large, and at present very unsatisfactory for the purposes of diagnosis.

B. Hæmorrhage, not from accidental injury, but from disease of vessel, the latter giving way before ordinary impulse, and under otherwise normal conditions.

1. Neural hæmorrhage is rare, but it is met with sometimes in that curious condition known as "hæmophilia."
2. Spinal hæmorrhage, more common in the child than in the adult.
3. Cerebral hæmorrhage, which may have various seats, and produce a widely different set of symptoms, so that I shall have to describe to you—
a. Meningeal, hæmorrhage into the arachnoid cavity, and within the meshes of the pia mater.
b. Cerebral hæmorrhage proper, sometimes limited within a narrow area, and affecting alone either the optic thalamus, the corpus striatum, one of the crura cerebri, the pons Varolii, the cerebellum, or the hemispheres; sometimes wider in its distribution; and sometimes passing beyond these boundaries, and producing a set of symptoms which must be separately described—viz.:
c. Ventricular hæmorrhage.
4. Hæmorrhage into the tissues of the organs of special sense, such as retinal hæmorrhage, and analogous affections.

C. Embolism. This may be a simple accident, so far as the nervous centres are concerned; as, for example, when a vegetation from the aortic valves, in recent and acute endocarditis, is detached by some physical exertion, and obstructs one of the cerebral arteries. On the other hand, such embolic obstruction may be favoured by the condition of the vessels in the brain, although the latter was not of itself sufficient to arrest the circulation.

D. Thrombosis, the very common and efficient cause of apoplectic seizures, but, as I have just said, often concurring with embolic accidents.

VI. Primary trophic changes in the nerve centres constitute the next group of diseases, and I shall divide these into two categories, placing in the first those the morbid anatomy of which has established their position, and in the second those with regard to which the true anatomical condition is as yet but a matter of inference.

These affections are marked by diminution of proper functional activity—such as loss of power of voluntary movement, loss of power for the co-ordination of movements, loss of nutrition, loss of sensation, loss of will, loss of the power of attention, and loss of mental aptitude generally or specially. Such conditions are often mixed up with irregular and excessive displays of the lower ranges of central, nervous, and muscular activity; and in a certain number of them these later phenomena are predominant; but the conviction to which I have arrived is that they are in the main secondary, and are the result of the attempt—sometimes voluntary, sometimes emotional, sensational, or simply physical—to overcome or counteract the discomfort that the loss of power has caused.

A. In the first group, those with regard to which we have the more accurate anatomical knowledge, are placed—

1. Nerve-wasting, from injury or neuritis.
2. Spinal cord degeneration, including—
a. White softening.
b. Locomotor ataxy.
c. Essential paralysis of children—"infantile paralysis" in one of its forms.
d. Paralysis agitans.
e. Wasting palsy (Cruveilhier's atrophy).
f. Spinal sclerosis.

It is, I think, somewhat unfortunate that these names have been allowed to pass into common usage. They lend strength to the notion that the sets of symptoms connoted by them constitute different diseases, and are distinguished from one another in the same manner and to the same degree that, for example, whooping-cough is distinguished from chronic bronchial catarrh, pneumonia from pleurisy, or corns from cancer. The prevalence of such idea is, in my judgment, mischievous; for the diseases I have enumerated resemble one another very closely in their etiological, pathological, and anatomical conditions, and in their clinical histories they run into one another in such a manner as to make it impossible sometimes to say with which you have to deal. What is needed is a more precise localisation of anatomical change, a more precise record of clinical phenomena, and a more careful association of the two. What is much to be deprecated is that the prominence of this or that set of symptoms should lead to the ready placing of this case as one of locomotor ataxy, of that as an example of white softening, and of a third as an illustration of wasting palsy, or paralysis agitans.

B. The second group is one to which I have already made such allusion that I have merely to enumerate its members—viz.:

1. Writer's cramp and scrivener's palsy.
2. Stammering (?)
3. Torticollis, spasmodic.
4. Histrionic spasm.
5. Chronic chorea.
6. Hysteric convulsions and the hysteric state.
7. Hypochondriasis.
8. Forms of paralysis which I have ventured to call "ideal."
9. Some forms of so-called "neuralgia" (?)
10. Tetanus (?)

Some of the conditions mentioned above clearly belong to this group; others might, perhaps, be placed more correctly in the eighth category, at which I shall soon arrive.

VII. The seventh group is one easily defined by the presence of morbid growths of well-recognised type.

A. Tumours occur in—
1. The nervous trunks, "neuromata";
2. In the spinal column;
3. In the encephalon; and
4. In the sensory organs.

They very generally have their starting-point in the meninges, or the bony coverings of the tissues they subsequently involve; but they may start from the interstitial material of the centres themselves; and they are widely various in their anatomical characters, and in the symptoms they produce.

B. Infiltrations.

VIII. The last group of diseases is one which at present, *per viam exclusionis*, we are obliged to make. The affections are of such nature that we cannot affirm in them the presence of any one of the preceding conditions. It would seem as if they depended upon some change in the intimate being, or mode of action, of the nerve-centres; that whatever it is that constitutes the special property of nerve-cell or tubule is, and is in itself, primarily wrong. There is a

dynamic derangement, independent of any failure in blood-supply, and apart from any recognised alteration of tissue; that which should do one thing does another, and often does that wrong thing very painfully. There is no *a priori* reason for discrediting the existence of such primary faults. A nerve-cell is no more exempt from the possibility of disease than is a secreting cell, or the connective tissue; and, *a posteriori*, there is abundant evidence to show that such faults exist. The affections to which I allude are often transient, but recurrent; they occur in all conditions of the general health; they come mysteriously, they go unintelligibly; they often puzzle and weary the orthodox practitioner, and sometimes make the fortune of the quack. They have no definite names, but they are often called by the names of well-ascertained diseases. They frequently complicate affections of distinctly appreciated type, but they not unfrequently exist alone. Everyone in large practice is familiar with them, but nobody knows very accurately what to do with them. They are sometimes said, and perhaps correctly, to be due to "latent gout"; they are often said to be "functional," "neuralgic," "hysteric," "hypochondriacal," "constitutional," or "in the family"; but they require further investigation, and such as I hope some of you may give them. Their general features are those of "pain," "spasm," or "local paralyses," often obviously severe and distressing, but rarely causing real anxiety to the physician as to their ultimate issue.

In conclusion, let me remind you of what I said at the commencement, that this system of classification is but tentative. It is that which I shall adopt in the present session; and if it helps you to take an approximatively correct view of the large group of diseases which it includes, if it assists you in your study in the wards, and, still further, if it compels you to correct it and improve upon it, I shall be assured that we have not lost time by spending so much of it upon the threshold of this vast subject which I have to bring before you.

Address

DELIVERED ON THE OCCASION OF THE

DISTRIBUTION OF PRIZES IN ST. MARY'S HOSPITAL MEDICAL SCHOOL,

On the 2nd July, 1873.

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Peculiarity of the Medical Profession—Its search always after Truth—Not trammeled like that of the Churchman, the Lawyer, or the Soldier—Modes of getting on in professional life—True mode—Medical Profession not a power in the State; it ought to be—Importance of this to the Public and the Profession—Conclusions.

MR. DEAN, LADIES AND GENTLEMEN,—My first duty, as well as my first feeling, is to thank you for the very great honour you have conferred on me in asking me to distribute the prizes to the successful students of this great school and hospital. I remember, as if it were only yesterday, the joyful throb and reddening brow with which I pressed forward to receive my first prize; and if I felt proud, and I did feel proud and grateful then, I do indeed feel doubly proud and grateful now, after a long professional life, in occupying the position in which your flattering kindness has placed me in being the distributor of prizes to my young friends here.

In any observations I make on the present occasion I will not follow the beaten path of many addresses to students, detailing to them the thousand-and-one acquirements which many speakers so often enumerate as necessary to make a man an accomplished physician. You have heard all these things a hundred times over; and if you have only learned one hundredth part of all you have been told to learn, you will have learned a hundred times more, I will candidly tell you, than I ever knew. In other addresses, again, the various details of preliminary, or, as it is the fashion now to call it, fundamental education, and of professional training, are most learnedly criticised and spread out before you. I will not enter on this wide domain; it is too big a field for our present meeting, and I will not perplex you or myself in its mazes. Instead of bewildering you and perhaps myself in the mazes of science or medicine, I will confine myself to the utterance of some few thoughts that have sprung up in my mind since I learned that I was to appear here to-day before you.

A consideration that has always been uppermost in my mind is that we have ever this proud consolation in our profession, that we are *searchers after truth*. We are not trammeled by any party net, nor controlled by any other consideration than this—that our object is to find out what is true, and our only vocation, to practise it.

The Churchman is not thus free. He must be a churchman all his life, and, as a true churchman, he must extinguish all glimmerings of doubt that may flicker before him, and advocate the doctrines and discipline of the particular church to which he belongs.

The churchman is not free in mind as we are.

The Lawyer is an advocate. He is bound by law and ethics to advocate the cause of the client who commits to his advocacy life or property, whatever he may think ought to be the verdict. He is not at liberty to examine the several sides of any question, to determine what shall be his own view, and act upon it.

The lawyer is not free in mind as we are.

The Soldier is bound by his duty to follow and obey the commands of his superiors, without inquiring into the justness or wisdom of the command.

The soldier is not free in mind as we are.

And as for the Politician, I will not be hard on him, for I have a brother feeling for him; but the politician and the statesman must often temporise, or even abandon what he knows to be *right*, in order to attain what he thinks is *practicable*.

The politician is not free as we are.

We are free from all bias, from all influences; free to seek out what is right and true in our profession, and to practise it. We may, like all other human beings, err in judgment, but we need not fall into error under the influences that sway other professions. This I have always felt as a proud reflection, even in the midst of early struggles, and throughout professional labours; and I am confident it will ever be to you, my young friends, the same.

I remember in my own early life a little incident that I may be excused for mentioning, as it exemplifies how unrestrained we are in our efforts after truth, and how little we have to fear in acknowledging our errors. In 1835 the first meeting of the British Association took place in Dublin. The physiology of the heart just then engaged much attention. Some previous contributions of mine had attracted a little notice, and I was invited to be one of a committee to investigate the subject. I did not accept the invitation, but on the first day of meeting of the Physiological Section I at once stated that the view I had put forward was erroneous, and arose from the mistake into which I fell of experimenting on the hearts of cold-blooded animals, fishes and reptiles, and arguing from them to the heart of man and warm-blooded animals. And how was my avowal received? By passing a vote of thanks to me for my communication. I do not know any other profession in which a similar avowal of error could have been as safely made and would have been as well received. Popular biographers and second-rate writers are fond of representing us as a jealous profession; we are not so. The story is again and again repeated that Harvey, the discoverer of the circulation of the blood, was hunted out of practice by the jealousy and envy of his professional brethren. There never was a more unfounded calumny. In 1607, when he was only twenty-nine years of age, he was elected a Fellow of the College of Physicians in London, eight years afterwards was appointed Professor of Anatomy to the College, and during his life-time the College erected a marble statue of him in their hall, with an inscription commemorative of his immortal discoveries and works.

When I was in the very beginning of my professional life I received from numerous acquaintances and friends an

abundance of what none of them would take from me—namely, advice, and that on a point of great consequence to me—viz., how I was to get on in life, how I was to attain eminence and competence.

The first of the advices I got, as I recall them, was to take the house of an eminent physician, who was just then deceased, and try to step into his shoes; but, however applicable that advice might be to succession in trade or business, I felt that in our profession it was the man and not the house that was sought, and therefore I did not act on that advice.

The next advice I got was to frequent "flower shows," "charitable bazaars," "matinées musicales," and "afternoon teas," and perhaps learn to twang a little on the "zither" or "guitar." This advice did not suit me; I had "no music in my soul," and I felt, like Richard, that I was "not shaped for sportive tricks"; and, moreover, I felt sure that such accomplishments, however suited for festive scenes, could not be the qualities which the sick would lean on for relief. The advices I got did not end there.

Some of my kind friends assured me the very best way to get business in my profession was to pretend to have it—to put on the appearance of being overpowered with it. They assured me they knew for certain some who succeeded by having themselves frequently called away from church and from the dinner-tables of their friends by urgent summonses to sudden and important cases. They considerately, however, added that the note marked "immediate and pressing," while ostentatiously handed to me, should, however, always be at a suitable time for my own comfort, so that I should not lose the good things of the table.

The next kind friend recommended me to take to driving hard in a carriage, particularly on wet and muddy days, so as to bespatter pedestrians and endanger lives at crossings, and make every passer-by inquire who I was. That did not meet my views or my pocket, and I thought of the lines applied to one of the profession, who was said to have so acted. I did not desire to have them applied to me—

> "Thy nags the leanest things alive,
> So very hard thou lov'st to drive;
> I heard thy anxious coachman say,
> It cost thee more in whips than hay."

I should tire you were I to enumerate the numerous advices my kind friends pressed on me as to the best way of getting on. I listened to all, and I must confess that I was at first inclined to grow sad and to regret I had entered a profession which, up to that time, presented to my young dream glorious eminences to be attained by battling forward under the flag "Excelsior." But, as I was beginning to despair, there was a little book published, "The Lives of British Physicians, extending from Linacre in 1410, to Gooch's death in 1830," a period of about 400 years. If my young friends have not perused the book I would advise those who are ambitious of eminence to read it, and I think they will come to the same conclusion to which I was led from its perusal, that there is but one road to excellence and success in our profession, and that is by steady study and hard labour; and you will at least always have this consolation in your dreariest hour of labour, that "no proud man's contumely," no "insolence of office" nor "spurns that patient merit of the unworthy takes" can bar your way.

The great Dr. Johnson, who said in his day a great many wise things, but also several foolish things, and who thought he knew everything, has thus written in his Life of Akenside:—"A physician in a great city seems to be the mere plaything of Fortune. His degree of reputation is for the most part totally casual: they that employ him know not his excellence: they that reject him know not his deficiencies." By an acute observer who had looked on the transactions of the medical world for half a century, a very curious book might be written on the fortune of physicians.

These observations are a bundle of fallacies, and if I think them worth noticing, it is to ask you not to be so mistaken as to believe in them. If you do believe in them, and act on them, you will assuredly repent it. Go through the lives of the eighteen or twenty men included in the volume I have noticed and you will learn this: that whether they were polished in manners like Linacre and Meade, or boorish like Radcliffe, a staunch royalist like Harvey, or a Roundhead like Sydenham, a very martinet in dress like Jenner, or plain as a Quaker in costume like Sir Thomas Browne, there was one quality which all possessed in common, and that it was which placed fortune at their feet—unremitting hard work in their early days. They were never the playthings of fortune as Dr. Johnson foolishly ventured to say; they commanded fortune.

Dr. Johnson in the same passage has put forth other fallacies. He says: "Those who employ the physician know not his excellence: they that reject him know not his defects." Do not believe in this. A few members of the public may go wrong occasionally, and for a time, in their judgment, but on the whole seldom, and the universal continued voice of the public is seldom wrong. I never yet knew a man in our profession hold the confidence and trust of the public for a lengthened time who did not deserve it. I have occasionally, nay, often seen men raised by the influence of connexion or extraneous circumstances into temporary eminence; but if they went up like a rocket, they came down like the stick. Connexions, friends, influence, can do no more than this—give you a field, such as a hospital for your practice, just as solicitors may give a young barrister briefs; but if there be not the head and the hand to do the work the young physician and the lawyer will soon sink to their true level.

Look to the lives of all those physicians who have risen to eminence and held it, and you will find, without an exception, that they had all been working men.

Cherish this in your young minds all who are ambitious. It is not given to all to be field marshals, or admirals, or bishops. There must ever be grades in every sphere of life; but you who are ambitious and look for the highest places, keep this impressed on your minds,—that unceasing labour is the only path to them. Remember the celebrated saying of Sir Thomas Browne, the author of "Religio Medici," one of the most extraordinary men next to Bacon who ever lived, who held a high position as a practising physician, and a world-wide reputation as a philosopher. He used often to say, "I never could be doing nothing."

I am, of course, precluded by good taste and propriety from bringing before you the names of living men in corroboration of the views I desire to impress on you for your guidance; but look around you here, look around you abroad, on the men that in this great city have risen to eminence in our profession, and who have continued to command the confidence of the public, and you will not find among them one who has not laid the foundation of his success in his own early and continued labour; and this explains what we so often see, that many of the men who have attained the highest positions and greatest wealth are men who had in early life neither connexion, nor party, nor sect, nor wealth, nor influence to aid them on their way. And it ever will be a proud reflection in our profession, that we can achieve position without depending on the smiles or fearing the frowns of fortune. The celebrated Cullen, one of the most illustrious of our profession in the science as well as in the practice of it, was the son of very humble parents in Lanarkshire. He began life as the apprentice of a surgeon-apothecary in Glasgow, and then was surgeon to a merchant vessel trading between London and the West Indies. Next we find him attempting to live by the practice of his profession among the peasants of Shotts, a region in Scotland proverbial for its bleakness and poverty. There now comes a curious episode in his history. The celebrated William Hunter was at the same time in like manner endeavouring to earn a scanty livelihood in the same poor district, and Cullen and Hunter, to enable them to support themselves and follow up their medical education, entered into partnership under an agreement that they should alternately work and study, each taking an alternate year to attend lectures and hospital practice in Edinburgh or London, the other undergoing the drudgery of parish work for their mutual support. There are few instances on record of the pursuit of knowledge under difficulties that bring a more affecting picture, and at the same time cheering picture, to the mind, than those two young men thus struggling with such obstacles to knowledge, and each in after years reaching the meridian of fame in Edinburgh and London.

The public often wonder when they see men, to them as it were, suddenly bursting into high position and great

emoluments, and are prone to attribute it to some ridiculous cause, or chance, or accident, such as narrated in the Diary of a late Physician, or some other similar nonsensical sensational production, no more like the reality than "I to Hercules"; but the public had not seen the long, silent, and continuous hard years of labour in hospital, lecture-room, or study. These labours have been laying the substructure, on which the foundation of the edifice of Fame and Wealth at length arose, which arrested the public eye, and at which it ignorantly wondered.

The burst of professional eminence is like that of the palm; its growth has been going on silently and almost imperceptibly, but when the time of bearing fruit arrives, it springs forth like the eastern fruit with what seems a sudden burst. Don't believe in chance or trust in luck.

There still remains one subject to which I would desire to ask your attention, and the attention of all, of young and old among us. It is that the profession is not "a power in the State,"—and that it ought to be. I can speak now from some experience when I say that we ought to be "a power in the State" for the good of the country, as well as for the maintenance of our own position. There is no other profession which necessarily and naturally possesses within itself the same amount of knowledge of the natural and experimental and social sciences, of all those sciences which have so intimate a relation with the well-being and progress of mankind. Why does not our profession hold the position and influence it ought to possess in the State? I think this arises from two causes: ignorance on the part of our legislators, and apathy on our own part. The members of our Legislature, with of course some exceptions, are not sufficiently educated to appreciate knowledge which they themselves do not possess. He who has no taste cannot appreciate works of art. He who has no knowledge of science cannot estimate its worth. I will mention one little incident that occurred within my own personal knowledge. In the course of some observations to a member of the House of Commons, who sat in the House for many years, and was an influential member of committees inquiring into engineering and sanitary matters, I stated that wherever gas was burning it was absolutely necessary for the preservation of health that there should be full provision for the exit of the products of its combustion, which, if allowed to remain in the room, would be injurious to health. He interrupted me with a supercilious smile, observing, "That is not necessary in all cases: the gas which I burn is so pure that nothing remains,—it is all burned away." Every day, however, this ignorance is disappearing, and as it disappears we shall take our proper position in legislating for the good of our fellow-men if we shake off our own apathy. All other departments of the State are represented, valued, and occasionally feared in the Legislature. When questions affecting any large section of the community are under consideration, there are always parties representing it to attend to it.

The mercantile community is represented in the House; the shipping community is represented; so is the agricultural, the army, the navy, the mining, and I need not tell you the legal profession is never absent. And I have constantly heard, on question after question: How will this affect the agricultural interests? the mining interests? the manufacturing interests? the shipping interests? how will it affect the legal profession? what view will their representatives in the House take? And these are often serious questions for the Government of the day. But we have few, and until lately I may say no representatives of the profession in the House; and hence it arises that we seldom hear the question: What view will the medical profession or its representatives take of the question before the House, or what information can they give? The Privy Council of the United Kingdom is the supreme court of appeal and direction in many most important matters connected with education and with the health of man and animals. The two Privy Councils include between them about 250 members. There are judges, bishops, soldiers, Masters of the Horse, of Ceremonies, in the Privy Councils, but not one member of a profession that would know more on many of the subjects to be adjudicated upon than all the present members put together. This is all our own fault.

I had very soon after my entry into the House a practical instance of the necessity of having members of the profession in the House for our own sake.

A very important Bill came before the House; it passed its first and second readings. There was provided under it payment for all members of the legal profession who were to be engaged in working at it, but none whatever for the medical profession, who were nevertheless bound to furnish the authorities with copious reports and opinions. And there was a clause in the Bill, not only declaring that such reports were to be given gratuitously, but imposing a penalty of £20 on every omission of report and opinion not forwarded within a fortnight. I remonstrated against it, but in vain; the time for the Bills going into committee came on, the two or three members of our profession in the House, with a small band of members who aided us, met the Bill in committee, and in the small hours of the morning, and at the last moment, the obnoxious and unjust clauses were withdrawn.

Similar instances of unfairness and injustice were about to occur in Superannuation Bills connected with public institutions, which could be dealt with by members acquainted with details, but only by such; for members of the House not intimately acquainted with professional details are incompetent, no matter how well disposed they may be, to deal with such questions—as incompetent as the manufacturing representative would be to deal with the details of agricultural questions, or agricultural representatives with manufacturing details.

I have always experienced attention and willingness on the parts of the heads of every Government to attend to fair representations and explanations, but these can only be fully and satisfactorily carried on by personal intercourse with members of the Government in charge of Bills.

It might be supposed that representations and memorials, and deputations to Ministers and heads of departments, would attain the same ends; but they do not. It is too often with deputations "out of sight out of mind." The only effective way of attaining the objects desired is by the personal presence of members who are practically acquainted with the subjects before them, capable of furnishing information at the moment required, correcting errors or combating objections as they arise; and, moreover, there are some occasions in which Ministers in the House become more than usually complaisant.

I have never heard any reason satisfactory to my mind for there not being a fair proportion of the members of our profession in the House of Commons. I am sure our general knowledge and patient habits of investigation would make many of us useful members for the public. We see members of our profession hold distinguished places in the legislature and in government in America, in Austria, in Germany, in France, in Turkey, and in Greece.

Why is it not so with us? It is our own fault. We have always many men among us who would be most useful to the State and to their own profession; but they hold back, and too often the excuse is that it would interfere with their practice, which means it would interfere with money-making.

It is also objected that there are no places for the medical profession, as there are for the barrister and for the politician, to repay the physician for taking on the *rôle* of a statesman; but surely there are other things in this world worth looking after besides money.

It is true Shakespeare's worst character says, "put money in thy purse"; "fill thy purse with money"; "make all the money thou canst"; but surely there are other things in this life more to be prized than money. There is great distinction in the mere position of being among great intellects, of mingling in their arguments, witnessing the collision of great minds, and of being trusted by thousands of our fellow countrymen as the exponents of their feelings and opinions. These are high prizes and high rewards, higher than money,—money cannot buy them. Our profession can feel them and prize them, and can achieve them.

I would not, of course, advise every member of the medical profession to aspire to embark in politics, any more than I would advise every lawyer. It does not fall to the lot of every man in either profession to be in a position to take such a step, but there are always men in both professions who can well afford to give a portion of their time to public duty, and I think they ought to give it.

I know there is sometimes a timorous fear that if members of our profession were to take any political views,

those portions of the public who disapproved of their political views would cease to seek their professional advice. I don't believe in this. The members of the community who stand in need of legal or medical advice care no more about the politics of the lawyer or the physician than they do about the colour of their carriage horses. They seek the physician for his professional worth, and nothing else; and so it should and ever will be. I believe that if the Archbishop of Canterbury thought that Simon Magus was a better physician than St. Paul, he would consult Simon Magus in preference to St. Paul.

It may at first sight appear to some of my hearers that I ought not on an occasion like this to touch in the most distant degree on what may present the remotest approach to medico-political considerations. I have two explanations for having done so. First, when I had the honour of being asked to address you this day, I inquired from your valued Dean whether it was his desire that I should confine myself to any particular subject or subjects. His kind reply was that all was left to my own discretion. Thus at liberty, I cannot think that I have strayed. It is true that many of my friends here are only on the verge of professional life, but some of them in a very few years will be leaders among their fellow-men, and I therefore have not thought it amiss to develop here for their consideration such thoughts as have grown up in my own mind during a long professional life. They may be right, they may be wrong; but, such as they are, I have thought it not wrong to travel out of the beaten path of merely telling you to be very good boys, and that God will reward you. I speak to you as young men in the prime of life, or near it, who are, and who ought to remember that you are, citizens of a grand and great State, part of a free people; that you will not perform your duties in this world if with steady and untiring cultivation of your own profession you ever forget your duty to your country, and whenever in your power to give to it and to your profession the benefit of the principles of truth, honour, and independence, and of the talents and knowledge with which Providence and your own study and your own good minds have blessed you.

NOTES OF VISITS TO FOREIGN BATHS.

BY JOHN MACPHERSON, M.D.

BADENWEILER.

BEFORE leaving the Black Forest I paid a visit to a station possessing waters of a very different nature from those last described. Badenweiler, in Breisgau, has recently risen into immense popularity, especially with the Northern Germans. It is an hour's drive from the station of Mühlein, on the Freiberg railway. It is 1420 feet above the sea, perched on a hill-side, with beautiful views in every direction. At one end is a ruined castle, with walks round it, and a park beautifully laid out and well wooded. It has several excellent hotels, and there are comfortable lodging-houses springing up every day, and lodgings are also to be had at the village of Oberweiler down below. Badenweiler is chiefly resorted to for its mild, equable temperature, and as a good station for the whey cure. But it also offers an abundant supply of water of the temperature of about 81°, having only 2·2 grs. of solid ingredients, and therefore belonging to the class of lukewarm indifferent waters. The Romans early found out these waters, and the remains of their baths —a double set for men and women—are among the most perfect out of Italy. There are comfortable baths in all the hotels, some of them lined with beautiful porcelain tiles; and, to add to the attractions of the place, the municipality has constructed a large swimming-bath not far from the old Roman baths.

The waters of Badenweiler are nearly of the same temperature (81°) as those of Buxton, and are equally indifferent; but they do not appear to have been used for gout or for drinking. Their temperature must of course be raised if they are to be employed in the energetic treatment of disease according to the thermal system.

I need scarcely say that there is a good conversation-house, and a band of music and concerts. A German bath must be very dull indeed in which they are wanting.

Badenweiler is mainly resorted to by convalescents generally, and especially by patients suffering from chronic bronchitis, or who are threatened with phthisis. Although so popular, it is still, comparatively speaking, inexpensive.

Entering Switzerland by rail I passed many baths which I had visited before. Schinznach, a place for real invalids, where the sulphur waters are carefully used, and where they will find careful treatment; but with its quiet arrangements it is not likely to suit English visitors. Next came Baden, with its immense supply of warm, faintly sulphur waters. Though its former glories have gone by, and it is difficult to discover the meadows and shady groves, the scene of amusement in old days, yet it is still steadily visited by natives of the adjoining districts, and is generally full.

The railway to Chur, so familiar to the visitors of St. Moritz, takes one through Ragatz—one of the most desirable of all the indifferent waters in Europe. It is most accessible, has a subalpine climate, being at the height of 1700 feet, and is not so shut in as Wildbad. It offers many of the advantages of Bad, Gastein, and of Zenk; and any of the diseases treated at those three places are also suitable for Ragatz. Of late years excellent hotels have been built, and the bathing arrangements of all kinds are very good; and there is a fine swimming bath attached to the Snellen Hof, which is altogether one of the most complete bathing establishments in the world. The place is not so expensive as most of the kind, and the poorer patients reside chiefly in the old baths of Pfeffers, in that irregular ravine, into which the sick were lowered in baskets in old days, and whence the water is brought down in pipes to Ragatz, which is 400 feet lower. At Ragatz there are always a fair sprinkling of English, and a few Americans. Excursions in all directions can be readily made from Ragatz, including one to the sulphur baths of Stachelberg, which is one of the wildest baths to be met with anywhere in the midst of Alpine scenery, and where living continues to be very moderate, the visitors chiefly belonging to the country. It is now but a short drive from the railway station of Glarus.

The shortest way to the baths of Tarasp is by leaving the railway a little beyond Ragatz, passing up the Prättigau past Davos, and those winter-cure stations of modern days, which have been sufficiently described by Dr. C. B. Williams. On the way up to Davos you pass the very old bath of Fideris, which is crowded and is in great local repute, and is found very efficacious in chlorosis. Sixteen ounces of its water contain carbonate of iron, ·18 grains; carbonate of soda, 5·5 grains; sulphate of soda, 2·5 grains; and plenty of carbonic acid. The well does not contain as much carbonic acid as the waters of St. Moritz, nor as much iron as many springs, still it is in great favour with the natives of Switzerland.

On the road by coast from Chur to St. Moritz, if one goes by the Albreta Pass, one passes the old spring of Alvenew, in a beautiful situation in a valley, and with a new and comfortable bathing establishment. It is a weak sulphur well containing some sulphate of lime; and is 2930 feet above the sea. I do not know that I have anything new in my notes on St. Moritz or Tarasp to communicate. It is only of late years that the use of mountain climates as a sanitary agent has been revived in Europe. I say revived, for going to St. Moritz was common in former days, and mountain air has always been believed to possess special virtues.

SELECTED CASES FROM OPHTHALMIC PRACTICE.

BY C. S. JEAFFRESON,

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POLYPI OF THE CONJUNCTIVA.

BUT few cases of this somewhat rare disease are upon record; the details of two cases may therefore be interesting to the profession.

The subject of the first was a man about fifty years of age, a gardener. The growth, which had attained the size of a large bean, grew, by an elongated pedicle, from the conjunctiva of the left eye, at the situation where it is

reflected from the lower lid to the globe, and close to the outer canthus. Under ordinary circumstances the polypus was not visible, having made for itself a kind of pouch at the situation where it grew; and, at a cursory glance, the patient presented no other peculiarity than a slight fulness of the lower eyelid. On retracting this somewhat forcibly the polypus sprang out from its situation, and then projected between the lids. The patient himself, by a little manipulation, could, however, always replace it so as to render it again invisible. In colour it was of a dark-claret hue; in consistence somewhat firm; it was free from tenderness to the touch, and rarely gave rise to pain. Its removal was effected by dividing the pedicle close to the conjunctiva; this, however, was followed by somewhat severe hæmorrhage, a small arterial twig (as seen by the pulsating jet of blood) being implicated in its structure. Its microscopical characters were those of an ordinary mucous polypus with a slight excessive development of fibrous stroma. There has been no return of the growth.

The second case, which in many ways differed from the first, occurred in a child six years of age. The growth, which sprang also from the fold of conjunctiva between the globe and lower lid, was situated midway between the outer and inner canthus; its form was flattened and fan-shaped, its flat surface being in close apposition with the ocular conjunctiva; its pedicle was short and scarcely to be distinguished from the remainder of the growth. Vertically the tumour measured about a quarter of an inch, and horizontally somewhat more than this in diameter, and in some positions of the eye it interfered with vision by crossing the area of the pupil. Its general appearance very much resembled, on a small scale, that of condylomata as seen in the neighbourhood of the vagina and anus, and its microscopic examination revealing a structure almost identical with these, led to examination of the external parts of the child. Although there was no analogous growth in this region, there was a well-marked vaginal discharge, and it is not unreasonable to suspect that this may have some connexion with the growth, which, although freely removed, shows a very strong tendency to return; and, indeed, since its removal, several other small papillary-looking growths have appeared in the neighbourhood of the caruncle.

OSSIFICATION OF A LARGE PORTION OF THE CHOROID FOLLOWING CHRONIC TRAUMATIC INFLAMMATION.

A deposit of bony matter in the choroid, though by no means a very rare event, seldom occurs to the extent detailed below. A gentleman, thirty years of age, received, when about six years of age, a blow upon the eye from a piece of exploded gun-cap. His memory failed him as to whether the piece of cap had been extracted, but all vision was completely lost shortly after the accident, and since that time he has suffered from occasional attacks of severe pain and inflammation in the eye. The pain, which has always been of a throbbing character, at times became quite distracting, and on several occasions he has been obliged to keep his bed for six weeks or upwards. The remaining eye, though free from any inflammatory changes, is in a highly irritable condition, and he complains of great photophobia. The diseased globe was consequently removed. On making a section of the eye in the equatorial region the lens was found to be absorbed, its position being occupied by a dense membrane of hypertrophied capsule. The ciliary processes were of light-brown colour, and much atrophied; the whole of the posterior half of the choroid was converted into a cup of bony material of at least an eighth of an inch in thickness. This cup was occupied by the remains of the optic nerve, and there was a small aperture in its centre where the nerve entered the eye. Externally the bony deposit had no connexion with the sclerotic, from which it was separated by a thin layer of brownish pigment, the only remaining trace in this region of the choroid coat. No trace of a foreign body could be found in the interior of the globe.

THE mortality last week in London and twenty other large towns in the kingdom was at the rate of 24 deaths annually to every 1000 of the estimated population. In the metropolis there were registered 1319 deaths, including 162 from diarrhœa and 26 from the different forms of fever. The death of a match-maker at the London Hospital was referred to necrosis from phosphorus.

THE MEDICAL VALUE OF ARTERIAL PRESSURE.

BY EDWARD DE MORGAN,
DISTRICT SURGEON, QUEENSTOWN, SOUTH AFRICA.

THE following deductions were made by me some years ago when experimenting with the sphygmograph. As I have found their practical application in diseases of the chest so valuable, I feel myself no longer justified in withholding them from the criticism of the profession.

Let us assume that pressure be applied to both axillary and femoral arteries; then, roughly speaking, about half the blood in the systemic or greater circulation is withheld. The remainder returns to fill the left ventricle of the heart, which either contracts upon half its normal amount of blood or *delays* its contraction until sufficient blood has returned from the unobstructed vessels to distend it to its normal contracting volume. If the latter of these two alternatives were the case the pulse would be diminished in frequency and its fulness greatly increased. It may at once be ascertained, by pressure on a femoral artery, that there is no alteration in frequency, and the sphygmograph shows that there is no increased tension in the radial pulse when the femorals are compressed. Hence it follows that the left ventricle contracts upon half its normal quantity of blood, and that the right ventricle contracts upon half its normal amount of blood, and that, the area of the pulmonary or lesser circulation being undiminished, the pulmonary artery contains but half its normal amount of blood; and thus it follows that the blood speeds through it less rapidly, and pressure within its walls is greatly diminished.

I determined to apply this theory in three different sets of cases.

1. (*a*) Hæmoptysis in consumptive cases; (*b*) hæmorrhage from wound of lung.

2. On the supposition that damming back venous blood from the lungs would diminish the necessity of oxygenation; (*a*) spasmodic asthma; (*b*) emphysematous and cardiac dyspnœa.

3. As a direct *dry cupping* of the lung in inflammatory diseases.

Of Class 1 I have had but little experience. We have but little hæmoptysis in South Africa. In the case of a Kaffir with a bullet-wound of the left lung, pneumothorax and hæmothorax present in great degree, axillary pressure gave immediate relief to the dyspnœa.

Of Class 2 I have applied pressure in five cases, and afforded immediate relief to dyspnœa in all.

Miss S—— has spasmodic asthma every month. She came to my consulting-room in great distress. I applied my thumbs to both axillary arteries, and she expressed herself immediately relieved. Pressure was continued for about five minutes. Upon removing it the dyspnœa did not return for about ten minutes, when pressure was again applied, and she left with her breathing nearly natural, the dyspnœa this time not returning for some hours. Her friends by my directions compressed her arteries, each time affording her relief. She states that this was the severest, but shortest attack she has had, and that less bronchitis was left than usual.

W. S——, an old missionary, aged seventy-six, has been failing since I first saw him one year ago. Has chronic bronchitis, emphysema, and dilatation of the right ventricle, besides other complications. One evening in May last I was summoned to him in haste, as his friends feared he was dying. I found him sitting up in bed; orthopnœa extreme; face livid; hands plucking at the bedclothes; cough incessant. He had had every door and window thrown open, and permitted no one to stand at his bedside. He just managed to gasp out that "I was too late this time." I applied my fingers to his axillaries alone, and in less than half a minute he expressed himself relieved. In less than two minutes he was thanking me in his old manner, and inquiring into the *modus operandi* of the means I had used. The pressure was removed after ten minutes, but the dyspnœa did not return. He began to cough up mucus more freely, and in a quarter of an hour fell asleep. On subsequent occasions, if pressure was removed too soon,

he would start up, and cry out that "It was coming back," but was again tranquil upon its reapplication.

The sequel of this case is interesting, as bearing upon this treatment. The following morning, whilst Mr. S—— was turning in bed, he fractured a rib on the left side. I was sent for, and found him in great agony, the crepitation being audible to those around on each laboured inspiration. Strapping and subcutaneous injection of morphia relieved him.

The following evening I was again sent for, this time to find him in a state of extreme cardiac apnœa; face deadly pale; pulse rapid and exceedingly compressible; respiration rapid; air entering freely into all parts of the lungs. Complained of a death-like feeling over præcordial region. Axillary pressure gave scarcely any relief. In fear and trembling, and feeling my way with small doses, I gave morphia, and this relieved the dyspnœa and procured sleep.

Subsequent experience in this patient's case, which ended fatally a few days after, convinced me that cardiac dyspnœa was not to be relieved in nearly the same degree as that of pulmonary origin, but in the latter relief was immediate and unfailing.

I will not occupy space by enumerating other cases; suffice it to say that mine, although few, have all been most unequivocal. And although I cannot imagine but that the principle and practice have been recognised before, yet, as I have never hitherto met a medical man to whom the effect of arterial stoppage upon the circulation has not been a novelty, I earnestly beg the profession to adapt it to treatment, and trust all may give the same relief to suffering that I have been enabled to do.

With respect to Class 3, where there is active inflammation of lung tissue, I cannot, from want of experience, speak with conviction. I think that gentle pressure of the femorals (it need not be complete) might be serviceable in the intractable catarrhs at the apex of the lung in phthisical people. I can speak from personal experience of the relief that pressure on one or both femorals gives to those irritating coughs that destroy the rest of those with consumptive disease. It might be well to remind experimenters that pneumonia predisposes to the formation of a pulmonary clot, and that it might be dangerous to slacken the pulmonary current in that disease.

Stoppage of epistaxis by elevating the arms may be due to the same cause by compressing the axillary arteries. This would act, I imagine, by facilitating the return of blood through the superior vena cava. If so, digital compression would be better. This is rendered probable by the arrest of hæmoptysis by tying up the arms of consumptives. My friend, Dr. Grabham, of Madeira, whose experience is large, told me that he often treated hæmoptysis in this way with success.

Lest I should override my hobby, I will only suggest the probability of lowered temperature in lungs whose blood-stream is much diminished, and the possibility of inflammation resulting, as after great amputations.

Queenstown, South Africa.

FURTHER REMARKS ON THE TREATMENT OF NOCTURNAL INCONTINENCE OF URINE.

By WILLIAM THOMSON, M.D.,
CONSULTING SURGEON TO PETERBOROUGH INFIRMARY, AND MEDICAL OFFICER OF HEALTH FOR PETERBOROUGH.

IT may seem to some minds that there is no such thing left nowadays as medical doctrine; that each man is his own teacher, and does what is best in his own eyes. Men have not gone to their old books with so much frequency or so much faith as they were wont to do. In some respects this is a change in the drift of medical work which is every day bearing testimony to the advance in medicine. There are many ailments that until recently have been passed over by our standard authors in a way which would lead young practitioners to conclude that they were either incurable or insignificant. Incontinence of urine is one of these, and I have now much pleasure in verifying the opinion I expressed nearly three years ago, in THE LANCET of Nov. 19th, 1870, and subsequently in November, 1872—viz.: that chloral hydrate would prove the most valuable remedy in this disease which has hitherto been employed. My excuse for again bringing the subject before the profession is that I have had several communications from medical men inquiring particulars as to the mode of administering the drug.

1. We must bear in mind that chloral is not always certain in its action. (The peculiar effects of chloral are well described by Dr. Murphy in THE LANCET of Aug. 9th.)
2. Only give it at night, the patient having fasted for two hours previous to going to bed.
3. Give it in full doses, and when in bed.
4. Let the patient have as little fluids as possible; beer and spirits to be entirely prohibited.
5. Not to be continued longer than a week or ten days; if benefit is not derived within that period, the case is either not one of incontinence depending on habit solely, or the peculiar idiosyncrasy of the patient prevents the beneficial action of the chloral.

I might say much on the employment of chloral in combination with other remedies when the incontinence depends on some specific cause, such as disease of the bladder, urethra, or kidneys, or from reflex irritation from ascarides, from constitutional debility, or anæmia. In all these cases it may prove useful in combination. But in fifteen simple cases treated by me during the past three years, it has proved alone a perfect cure in all in less than a week.

In conclusion, I would add that it is my belief that when chloral is employed in this disease, with the rules advised, it will prove highly satisfactory both to the physician and patient, as it enables us to cure speedily a disease the mere discussion of whose symptoms is a source of humiliation to the sufferer.

Peterborough.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. *Proœmium.*

LONDON HOSPITAL.

CASES OF CURVATURE OF THE SPINE; PARAPLEGIA; RECOVERY.

(Under the care of Dr. RAMSKILL.)

THE subjoined cases furnish good illustrations of paraplegia following curvature of the spine. The changes in the cord which produce loss of motion, with or without loss of sensation, in cases of angular curvature, are not exactly known; still less the manner in which the cord recovers its functions. As a knowledge of the anatomy and physiology of the various tracts in the spinal medulla would lead us to anticipate, loss of motion commonly exists without any interference with sensation; whereas it is doubtful whether cases are ever met with in which there is paralysis of sensation alone in cases of angular curvature. It is, moreover, interesting to note that, notwithstanding the loss of motor power, the reflex movements remain active, and that the patient may suffer from severe and distressing spasms of the paralysed limbs. Happily the prognosis is favourable in many cases, although the disease is liable to recur at uncertain intervals.

For the notes of the following cases we are indebted to Mr. R. Kershaw.

The first case is that of R. H——, aged twelve years, who was admitted as an in-patient on July 11th, 1872. His mother stated that about eighteen months ago he fell and injured his back, and from that time he held his head a little to the right. After this a lump appeared in his neck, and it subsequently burst and became very sore. It

was ascertained also that about the same time he lost the use of his legs, and was unable to hold his urine and fæces. Both sphincters were completely paralysed, so that he passed both urine and fæces in bed; and this condition continued for several days after he became an in-patient. On admission he could not stand, and was unable to move his legs. There was an antero-posterior curvature of the spine, about the lower cervical and upper dorsal region. After being in bed about a month he regained partial power over his legs, and was able to move by supporting himself with his hands, and in the course of a few weeks more he walked across the ward. On Sept. 22nd, when he was discharged, he had recovered to such an extent that he walked out of the hospital.

This boy was seen a few days ago (Sept. 6th), when he was found actively employed in the workshop of his father, who is a carpenter. He has been quite well since leaving the hospital, with the exception of a slight cough during the winter. The curvature is not altered, and there remains considerable immobility of the neck.

The second case was J. H——, aged forty-seven, who was admitted Sept. 4th, 1871. He said that about the previous Christmas he began to experience pains of a darting, shooting character in the back of his neck and under the arms, and soon afterwards in the chest and between the shoulders. These pains were not continuous, but came on at intervals, and were more or less severe until June, when they became very distressing, and compelled him to give up work. Up to that date he could walk well, his legs not having suffered, and he became an out-patient. But about the beginning of August he began to get "unsteady, and walked as if he were drunk about the legs," which were numb; he could not feel the ground when he walked; sometimes he felt as if he could lift his feet well, and at others as if he could not move them. He managed, however, to get about until a fortnight ago, when he found he could no longer walk. At about the same time his hands and tips of fingers began to be numb, though the tip of the first finger of the left hand had been in a similar condition for two months previously. He said his voice had altered also, that he spoke more slowly, and could not call out as he used to do. He had no difficulty in swallowing. His eyesight, sense of hearing, smell, and taste, have never been affected. Power in the right hand was diminished, and sensation impaired down the back and over the abdomen and lower part of the chest. He said he sometimes felt as if he had a tight band round his stomach, and at others as if he had no clothes on. Motor power in the legs was not altogether lost, but sensation was almost entirely gone. He had control over his bladder and rectum, with a little loss of power over the bladder, and he could not strain when at stool. There was no pain caused by striking the vertebræ. In the sacral region there was an angular protuberance, as if there had been disease, but he could not say how long this had existed. There was a well-marked antero-posterior curvature of the spine at the upper dorsal region.

The patient remained in bed many months with very few signs of improvement, and at the end of ten months was discharged at his own request.

On September 7th this year he presented himself at the hospital. He looked well, and walked with great freedom, the only peculiarity being that he had somewhat the gait of a sailor. He stated that whilst he is asleep his legs sometimes start sharply and wake him up. This, and the little peculiarity in walking, are the only remains of the paralysis. There did not appear to be any altered sensation. He can now grasp forcibly with both hands, but rather better with the left. On taking a deep inspiration his diaphragm moves freely, but his chest does not appear to expand fully. The curvature of the spine remains as before.

The third patient was a boy, S. B——, aged fifteen, who was admitted April 3rd, 1873. He stated that until six months before admission he had very good health. At that time pain began in the middle of his back, and persisted for about a month, and then gradually subsided, leaving his back somewhat curved in an unusual manner. This curvature increased, and in three months more he felt weak in his legs, and said that when walking they seemed to jump at each step; he had then to stay in bed. The sensation of jumping became worse, and after four or five weeks from the day it began he lost the use of his legs completely.

Whilst in the hospital he said he had no pain whatever. He slept well, his appetite was good, he looked cheerful, and showed no evidence of suffering; his bowels were constipated. There was a very marked projection posteriorly of the vertebræ from about the 6th cervical to the 3rd or 4th dorsal. He could draw up his right leg slowly, but could not move the left. When placed upon the floor in a standing position he said he did not feel the floor. Sensation was partially lost all over the surface below the scapulæ, but the degree of sluggishness of transmission varied in different situations from one to ten seconds, and in a few positions it appeared to be entirely wanting. This was noticeably so on the crests of the ilii, where even firm pressure was not felt, and on the inner sides of the feet, but in the latter situation there was marked reflex action.

The boy was taken away by his parents in June, when little or no improvement could be seen. On inquiry, however, at his home it appears he has been at the seaside for some weeks, and had so far recovered that at the end of August he was able to stand without assistance, and ten days later had succeeded in walking across the room.

The fourth patient was a little girl who attended the hospital as an out-patient some time ago with a similar curvature, and paralysis of the lower extremities; after resting some months, she regained the use of her limbs to such an extent that there was very little apparent defect in her walk.

In speaking of these cases, Dr. Ramskill remarked that in cases of this kind it is often asked if a patient will recover the use of his legs; and the above cases, as well as others, show that there may be complete paralysis, and symptoms indicating that the spinal cord is greatly diseased, and yet the patient may gradually recover the power of walking. In these patients there was complete loss of motor power, also loss of sensation, and increased reflex action, indicating that the cord was greatly compressed, or was softened at the seat of the curvature. Where there is antero-posterior curvature of the spine, it is well known that there may be an abscess connected with the caries of the vertebra and intervertebral substance, which may pass backwards into the spinal canal and compress the cord; or it may excite inflammatory softening in the substance of the cord; and in cases similar to the first and second recorded above, where the paralysis diminishes or entirely disappears, it seems most probable that the loss of motion and sensation has been caused by inflammatory softening excited by mechanical irritation.

ST. THOMAS'S HOSPITAL.

ACUTE MENINGITIS IN AN INFANT; DEATH.

(Under the care of Dr. PEACOCK.)

ACUTE MENINGITIS of the convexity—which is frequently secondary to other disease of the brain, and often follows injury to the head—is much more rarely seen in children than in adults; while basilar or tubercular meningitis is almost confined to children. The high fever and very rapid pulse which characterise the simple variety were present in the subjoined case, but, contrary to the usual rule, the pulse maintained its frequency to the end. A difference between the meningitis of the convexity and that of the tubercular variety is, that while in the latter the ventricles are enormously distended with fluid, in the former the ventricles are usually nearly empty. The cause of the disease in the following case is obscure, there being no history of injury to the head, or evidence of other disease except what occurred subsequently to the onset of the meningitis.

Henry S. B——, aged five months, was admitted on the 30th June, 1873. From the mother's account the child had always enjoyed good health, and sucked well until three days before admission, when, on the morning of the 27th, he became very irritable and would not suck, and she noticed that the head was very hot and seemed larger than usual. There was no vomiting or convulsion. On the 29th, after giving him a powder, vomiting occurred once, but has

not been repeated. The mother thinks that the head has been increasing in size for the last week; and the eyelids have been somewhat swollen. The bowels have been freely open throughout; and there has been no other symptom of importance.

On admission the child appeared drowsy and quiet; skin dry and hot; face flushed; pupils equal and somewhat contracted; no photophobia; no strabismus; no paralysis of face. The head was large, fontanelles very wide, dura mater distended, bulging, and pulsating strongly. Measurements of head: circumference just above ears, 17½ in.; transversely, opposite the posterior angle of anterior fontanelle from ear to ear, 11 in. Bowels freely open. Temperature at 9 P.M., 102·4°; pulse 140, small, rather hard.

July 2nd.—Face has been alternately flushed and pale, and occasionally rather dusky; is now much flushed on one side; is quiet and sucks well; no vomiting or crying. The fontanelles appear rather less tense than before. Temperature 100° at 10 A.M. Was ordered last night ten grains of sulphate of magnesia and two grains of nitrate of potash every four hours.—10 P.M.: Is sleeping quietly. Temperature 103°; pulse 160, small; respiration hurried; face flushed; skin hot. Ordered a blister to the left side of head, and iced compresses to be changed every half hour.

3rd.—10 A.M.: Looks better, but has some cough. Temperature 102·6°; pulse 160.

For the next three or four days he continued in much the same condition, and the temperature was somewhat lower; but on the morning of the 7th it rose to 104·2°, the pulse to 180; and on the following morning the temperature was 105·5°, falling by 9 P.M. to 101·5°. The cough, however, continued troublesome, and there were signs of some consolidation at the base of the right lung. On the 11th, great tenderness of the head when touched was observed for the first time; and on the 12th, the temperature, which had fallen to 99·2°, again rose to 102·6° in the evening. On the evening of the 13th, temperature 103·7°; pulse 200; respiration 90 to 110. On the 14th was much worse, and convulsive turning upwards of the eyes commenced. From this time the child continued unconscious, with only slight intermissions, and with occasional convulsions, until death. Shortly before death, which occurred at 10 P.M. on the 16th, the left pupil was minutely contracted, whilst the right became somewhat dilated, but of irregular outline.

The iced compresses were applied continuously until the 12th, and then discontinued at the mother's request.

Autopsy, sixteen hours after death.—The brain was found to be covered with a thick layer of yellowish lymph, extending over the vertex, firmly adherent, and for the most part rather firm and solid, but in the middle line softer and almost purulent. None was found at the base of the brain, nor on the upper surface of the cerebellum. The longitudinal sinus contained a firm granular clot; and the superficial vessels of the vertex of the brain were occupied by firm thrombi, apparently of ante-mortem origin. The substance of the brain was softened, but not much inflamed, and there was no extension of the inflammation to the spinal cord or membranes. The ventricles were not at all distended. Patches of inflammation were found in the right lung, and some collapse of the lower lobe of the left; but otherwise the organs were healthy.

ST. MARY'S HOSPITAL, MANCHESTER.

TWELVE CASES OF OVARIOTOMY.

(Under the care of Dr. LLOYD ROBERTS.)

WE conclude this week (from p. 770 of vol. i., 1873) the report of Dr. Roberts's cases of ovariotomy. Ten of the cases have been successful and two fatal. In one of the fatal cases the operation was performed for malignant disease of the ovary.

For the following notes we are indebted to Mr. H. Runcorn, house-surgeon.

CASE 11. *Multilocular disease of both ovaries; ovariotomy; weight of tumour and contents 18¼ lb.; recovery.*—Mary H——, from Oldham, admitted January 4th, 1873. Has had four children; the eldest is twenty years old, the youngest fourteen. No miscarriage. The menstrual flow commenced when she was twelve, and has continued regularly ever since; the last period terminated on January 2nd, 1873. During the last twelve months, however, menstruation has been very profuse. She says that the abdomen began to enlarge about a year ago, and during the progress of this gradual enlargement the discharge of urine has sometimes been excessive, at other times very scanty.

Present condition.—Abdomen occupied by a tumour which extends as high as the ribs on both sides. There is dulness on percussion over the abdominal surface, except the lumbar, the left hypochondriac, and the epigastric regions. The abdomen is smooth, more prominent on the right side, and fluctuates very distinctly over its whole surface. The girth at the umbilicus is thirty-one inches, and the distance from sternum to pubis fifteen inches and a quarter. On examination per vaginam, the uterus is large, heavy, tuberculated, and painful. There is retroflexion and immobility, the lower part appearing fixed anteriorly. The cervix is short and irregular; the os open sufficiently to admit a No. 8 catheter. Measurement by sound three inches and a quarter.

The operation was performed on January 8th, 1873, the patient being under the influence of bichloride of methylene. The abdominal cavity having been opened by an incision three inches long, and some adhesions to the abdominal wall separated, a pearly cyst was exposed, and emptied by means of a syphon trocar. A second cyst was opened through the first. The collapsed cysts, together with some solid matter which followed, were now drawn through the opening and found to be the right ovary. Another cystic tumour of the size of a child's head now came into view in the left hypochondrium, and was found to be the left ovary in a state of cystic disease. The pedicle of the tumour on the right side was now transfixed by a silk ligature and the tumour separated; and the ends of the ligature having been cut short, the pedicle was returned into the abdomen. The cysts on the left side, constituting the left ovary, were now emptied, separated, and the pedicle returned in exactly the same manner as on the right side. Some blood-clots were next removed from the pelvic and abdominal cavities, and the edges of the wound brought together by eight silk ligatures.

The pulse after operation was 62. In the evening the patient complained of pain in the back, and was ordered a quarter of a grain of morphia suppository. This, with another quarter of a grain suppository, was the only opiate she had. The pulse rose to 120 on one occasion, but in general it was about 100. The temperature never exceeded 99°. The ligatures were removed on the third day, the wound having healed by the first intention. The diet consisted of iced-milk and lime-water for the first few days, and afterwards of bread-and-milk and tea. On the 12th of January she commenced to menstruate, and continued to do so for four days. She passed flatus per rectum the day after the operation. When she began to move about she was troubled with vesical irritation, which was, however, always relieved by the administration of an infusion of triticum repens. She was discharged cured on the 18th of February, 1873.

The tumours were multilocular, and with their contents weighed 18¼ lb. The larger cysts in both tumours were filled with a clear limpid fluid of low specific gravity and highly albuminous. The smaller cysts, which varied in size from a hazel-nut to a millet-seed, contained a glairy fluid like the white of egg. The walls of the cysts were of different thickness and transparency.

CASE 12. *Multilocular ovarian tumour, weighing 13¼ lb.; ovariotomy; recovery.*—Annie C——, aged forty-five, single, sent by Mr. Reston, surgeon, and admitted on Feb. 18th, 1873. Menstruation had always occurred regularly every four weeks, each period lasting three days. She had always enjoyed good health until four months ago, when the abdomen suddenly enlarged. She has since then been troubled with severe abdominal pains.

Present state.—The abdomen is occupied by a fluctuating tumour, conical in shape, and fixed in front. There is a distinct bowel sound between the liver and the tumour, but no tympanitic sound could be made out even very low down in the flanks. There is dulness on percussion all over the abdomen as high as the stomach, the abdominal wall is very thin, and there is much emaciation. The uterus and the vagina are normal, and there is no vesical irritation. The pulse is feeble, the appetite poor, and the bowels irregular. The girth at the umbilicus measures 35 inches, and the distance from sternum to pubis is 17½ inches.

The operation was performed on Feb. 26th, 1873, under the influence of bichloride of methylene. The abdomen having been opened by an incision about three inches in length, and some firm adhesions in front separated, the tumour was then explored, and a large cyst emptied of a reddish fluid. Another and smaller cyst was then evacuated, and the two cysts drawn through the abdominal wound. Some smaller cysts, together with a lump of solid matter the size of an orange, followed on continuing the traction. The pedicle, which was short and thick, and situate on the left side, was now transfixed, and secured with a silk ligature, the ends of which were cut close to the knot, the tumour separated, and the stump dropped into the pelvis. The abdominal wound was brought together by nine silk sutures. Some lint and plaster completed the dressing. The pulse immediately after the operation was 60. At 4 o'clock P.M. it had risen to 94, and the patient complained of headache. A quarter of a grain of morphia suppository was therefore administered.

Feb. 27th.—9 A.M.: Temperature 99·2°; pulse 89. Had a slight bronchial cough, which was relieved by a linctus and sinapism.—9 P.M.: Pulse 110; temperature 100°; has taken milk and water.

28th.—She has had a good night, and has passed flatus per rectum. Pulse 98; temperature 99·2°.

March 1st.—Feels better; six ligatures removed. In the afternoon she complained of flatulence and pain in the bowels, both of which were relieved by charcoal and a warm water enema. She takes iced milk with lime water.—9 P.M.: Pulse 115; temperature 100·2°.

2nd.—9 A.M.: Pulse 110; temperature 99°. She began to menstruate during the night. Has vomited once. The remaining three ligatures were removed. After this date no untoward symptoms occurred, and the patient left the hospital on March 22nd.

The tumour and its contents weighed 13¼ lb. The large cysts were thin, transparent, and not vascular. The fluid in the largest cyst was deeply tinged with blood, evidently from the rupture of a bloodvessel. In the smaller cysts the fluid was of a brown colour, and of the consistence of thin mucilage. The solid portion of the tumour was composed of cells of different sizes, containing a darker coloured fluid, varying in consistence from a thick syrup to that of size.

Reviews and Notices of Books.

Clinique Chirurgicale de l'Hôpital de la Charité. Par L. GOSSELIN, Professeur de Clinique Chirurgicale à la Faculté de Médecine. 2 Vols. 8°, avec Figures intercalées dans le Texte. Paris: J. B. Baillière et Fils. 1873.

THIS, the second, volume of M. Gosselin's Clinique Chirurgicale, includes fifty-four lectures on the most diverse subjects. The French are peculiarly happy in this kind of literature. To write well in this manner involves considerable practical experience, an orderly arrangement of facts, broad references to previous writers without the necessity of giving chapter and verse, and a lucid style. It is seen in perfection in Trousseau; and we give the highest praise to M. Gosselin when we say that these lectures are not very dissimilar in style and interest to those of that great master, whose translation by the Sydenham Society has placed them in the hands of every practitioner. Amongst the first in this volume are six devoted to ophthalmic affections, including palpebral emphysema, lachrymal abscess, keratitis in old persons, iritis, cataract, and refraction cases. M. Gosselin's remarks on these subjects show that he has paid considerable attention to them, though he is here and there a little behind the time. Thus, in his comments on a case of irido-choroiditis attended with complete loss of vision—the reason of which last, after many suggestions, he gives up as hopeless,—he makes no mention of the tension of the globe—a point to which every specialist in that subject would have immediately addressed himself, and which would probably have furnished the clue to the blindness. The case is otherwise very cleverly diagnosed as one of syphilitic irido-choroiditis, though occurring in an old man, who denied the possibility of its occurrence. The chapter on Cataract is worthy of a little more detailed notice. After giving the mode of walking of the patient, the appearances presented by oblique and direct illumination, the absence of the third image, &c., M. Gosselin proceeds to state, on the authority of MM. Robin and Broca, that the capsule is capable of undergoing opacification in common with the lens. This, we believe, is an error; and, if we remember rightly, H. Müller showed clearly that, in supposed cases of capsular or of capsulo-lenticular cataract, the capsule itself remains, with very rare exceptions, transparent, the opacity being due to deposits upon its anterior or upon its posterior surface. Again, M. Gosselin states decisively that there is no connexion between diabetes and cataract; yet not only is the frequent concurrence of the two in man strongly in favour of it, but there is good evidence obtainable from experiments on animals. M. Gosselin refers to Tavignot's suggestion for the cure of cataract—namely, by the instillation of phosphorised oil, and states that, though he has tried it somewhat extensively, he has never seen it succeed. He then gives a rather interesting sketch of the various modes of operating for cataract that he has seen practised during the last forty years, and concludes by observing that, in the case before him, one or other of four modes of operating might be adopted—(1) by depression, (2) by inferior keratotomy, (3) by superior keratotomy, and (4) by the linear method with iridectomy. Perfect success—i.e., the capability of reading Nos. 4, 5, and 6 of Jaeger's test types, is, so far as his experience and observation go, rare; demi-success, or the power of reading 7, 8, and 9 of Jaeger with appropriate glasses, is more common. Secondary cataracts are no doubt often removable; but these, with atresia of the pupil, albugo, suppuration and subsequent atrophy of the globe, and extension of inflammation to the retina, constitute a formidable list of casualties which, according to him, form 25 per cent. of all the cases operated on. M. Gosselin gives a table of the results of his operations, which, we have no doubt, is very faithful, though not very satisfactory, for whilst he has had thirty-eight successful cases of flap operation, he has had seventeen unsuccessful, and four doubtful cases, and with Graefe's modified linear he has had three successful and four unsuccessful cases. He states decidedly, and we are quite disposed to agree with him, that in hospital cases, taken indiscriminately, it is absolutely impossible to obtain the proportion of successful cases given by some authors; such as 88, 90, and 95 per cent. If such success had ever been obtained, either by depression, by flap operation, or by Graefe's method, no suggestion for a different method would ever have been heard of. The proportion of really good results is far below these numbers.

M. Gosselin describes two cases of mammary abscess in puerperal women, and states that his experience, chiefly gained in the practice of large towns, has led him to avoid the use of the lancet and to leave them entirely to themselves, applying warm poultices alone. He finds that they usually communicate sooner or later with the galactophorous tubes, and are thus discharged, as it were, *per vias naturales*; whereas several cases have come under his notice where incisions made with a view of permitting the escape of matter have been followed by erysipelas and death, or by most serious symptoms. Only, he says, under very favourably circumstances would he use the bistoury. Many English surgeons would, we think, dissent from this mode of treatment, not only on the score of its greatly protracting the case, but on account of the inconveniences that arise from

the matter burrowing, forming fistulæ, and leading to serious disturbance of the general health.

A lecture is devoted to Gonorrhœa, the duration of which M. Gosselin gives, more correctly than usual, at a week to a fortnight for a period of increase, about a month for a stationary period, and a period of decline varying from thirty to forty days to several months or even years. He holds that blennorrhœa is non-contagious, and that whenever it has apparently been contagious it is explicable on the view that one or other of the affected parties has been exposed to fresh contagion of gonorrhœa. He is strongly opposed to injections of all kinds, but gives copaiba and cubebs internally instead. He speaks of intense pain in micturition, the passage of blood and discharge of false membranes, inflammation of the prostate, cystitis, and stricture, as results of caustic injections—a picture that is somewhat overdrawn, as most English practitioners can testify; though there is doubtless some danger when the solutions have been very strong. Our author, however, does not appear to place any confidence in even the milder forms of injection.

M. Gosselin gives an interesting account of various unusual forms of orchitis that have fallen under his notice; as, for example, a case of orchitis with peritonitis, another of inflammation limited to the vas deferens, a third accompanied by severe neuralgia, a fourth of inflammation of the vas aberrans, a fifth in which the orchitis was metastatic from the parotid; and a chapter is devoted to the record of cases of unusual termination of orchitis. The steps by which the several cases are diagnosed are very instructively given. Thus, in a case of fluor albus in a young woman, the nature of the discharge, the results of external and then of internal palpation of the uterus, and, finally, the results of examination by means of the speculum, are described, till at last the case is diagnosed as one of painful catarrhal metritis with ulcer and with retroflexion. The indications for treatment are next considered. M. Gosselin denies the presence of nerves distributed to the neck of the uterus, which we think is an error, but he gives some interesting details on a subject to which he has paid especial attention—namely, absorption by the neck of the uterus. He finds that if plugs of cotton-wool wetted with a ten per cent. solution of iodide of potassium be applied to the neck of the uterus, the presence of iodine can soon be shown in the saliva. This absorption takes place much more rapidly if there be erosions of the uterine surface.

Other clinical lectures in this volume are devoted to uterine catarrh, retro-uterine hæmatocele with pelvic peritonitis, prolapsus of the uterus and of the rectum, hydatids and other encysted tumours, stricture of the urethra, lithotrity, &c., some of which may be read with interest, as representing the practice and opinions of an experienced and very sound surgeon.

SMALL-POX IN PHILADELPHIA.

THERE has been published, as part of last year's report of the Philadelphia Board of Health, a most instructive and exhaustive analysis by Dr. Welch, of the results in 2377 cases of small-pox treated in the municipal hospital of that city during the years 1871–72. Amongst the many points of interest touched on in this pamphlet those which refer to the rate of mortality in patients of different nationalities are particularly noteworthy. The bulk of the sufferers were natives either of the United States, Germany, or Ireland, and Dr. Welch's statistics throw considerable light on the way vaccination is carried out in these countries.

As shown by the admissions into the hospital, small-pox became epidemic in Philadelphia in the month of August, 1871; it increased in prevalence during the autumn and early winter, raged severely in November, December, and January, then gradually became less severe, until, in July, 1872, the visitation terminated.

As has been already stated, the total number of patients treated was 2377; of these 743 died, giving a mortality of 31·25 per cent. When this rate is compared with that of the London or Irish hospitals in the same epidemic it is seen to be exceedingly high, for in London the percentage was about 19, in Ireland 21. Dr. Welch assigns two reasons for the great mortality—namely, the virulence of the epidemic, and the large proportion of his patients who were addicted to intemperance, and so had ruined their constitutions. The first reason is equally applicable to this country, and we fear we must also say the same of the second. We have therefore to look for some other cause for this marked difference, and it is to be found in the much larger number of patients who were unprotected by vaccination. In Philadelphia of those admitted to the hospital 31·4 per cent. were unvaccinated; in the English and Irish institutions the percentage was about 20.

The negro is generally supposed to be more susceptible to the contagion of small-pox, and also to succumb more readily to the disease, than his white congeners. But this was not found to be the case in the epidemic under consideration; for of the 403 unprotected whites who contracted the disease, 270, or 66·99 per cent., died; while of 160 unvaccinated negroes, to 95 did the disease prove fatal, giving a percentage of 59·37. Here the advantage is on the side of the coloured race. The practice of vaccination is much neglected amongst the negroes, for it appears that of the total number treated close upon a half were unvaccinated.

Natural small-pox proved fatal to the natives of the different countries in varying proportions. Of those born in the United States, who were unvaccinated, 64·23 per cent., of unvaccinated Germans 53·65 per cent., and of the same class of Irish 67·44 per cent., died. Clearly there must be some cause for this difference in the rate of mortality in individuals suffering from the same disease, in the same epidemic, and presumably subject to the same climatic and hygienic influences. The report does not contain any suggestion on this point, and we should like much to know whether it can fairly be ascribed to the greater prevalence of intemperate habits in one class than another, and whether the Germans are the most, and the Irish the least, temperate of the three nationalities here named.

We briefly summarise the general results as follows:—Of natives of the United States there were 1380 patients, of whom 38·6 per cent. were unvaccinated; the general mortality was at the rate of 35·7 per cent., and amongst the vaccinated 17·7 per cent. Of Germans were admitted 518, of whom only 7·9 per cent. were unvaccinated; general mortality 17·2 per cent., of the vaccinated 11·9 per cent. The Irish patients numbered 265, with 32·4 per cent. unvaccinated; general mortality 39·2 per cent., post-vaccinal mortality 25·6 per cent. From this it is evident that the Germans are much more thoroughly protected than either of the other classes, and that both in the quantity and quality of their vaccination they excel. But on this subject we cannot do better than quote Dr. Welch's words:—"This question leads us to consider the mode of practising vaccination in Germany. We are informed that the practice there is to use eighth-day lymph, and, as far as possible, arm-to-arm vaccination is practised. There is another peculiarity about the German mode of practising vaccination—namely, in grafting upon the arm numerous vesicles. It appears to be the practice in Germany to make at least six insertions—three on each arm. These two—the use of fresh eighth-day lymph and the ingrafting upon the arm numerous vesicles—are the peculiarities which characterise the German mode of practising vaccination. The German subjects must owe their better protection to one or other of these, or both combined"; and again, "the proportion of cases admitted exhibiting poor cicatrices has been considerably less among the post-vaccinal cases of Germany than among those of either the United States or Ireland."

These principles are being constantly inculcated by our

English authorities on the subject, yet the recent outbreak showed how imperfectly they had been carried into practice, and the fatal results which follow the neglect of them. At the beginning of the late epidemic our Irish fellow-citizens were rather inclined to exult over the exemption from small-pox which they for a short time enjoyed, and ascribed this exemption to the excellent way in which vaccination was performed in Ireland. Subsequent events showed that their boasting was premature, and the results given above prove that their vaccination arrangements have not been so perfect as was affirmed.

We have heard it stated that the exemption from small-pox enjoyed by the servants at small-pox hospitals, when in constant contact with the disease, was to be explained by the fact that they were selected from patients who had already suffered from the complaint, and were consequently insusceptible to the variolous contagion. For the consideration of such critics we submit the following statement, which entirely agrees with our own experience that re-vaccination is a better protection against small-pox than a previous attack of the disease:—"Indeed, not a single person connected with the hospital who had been revaccinated contracted the disease; while, on the other hand, some three or four of the nurses who had been affected by small-pox previously, took the disease a second time."

NOTES ON PROVINCIAL HOSPITALS.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

AT the present moment, when a strong effort is being made by the Senate of the University of Cambridge to raise the standard of scientific medical education, it may not be uninteresting to see what opportunities this, the only hospital in Cambridge, affords in the way of practice and clinical teaching to those students who elect to make Cambridge the place of their studies. That the University is fully alive to the necessity of improving her scientific teaching is shown by the provision she makes for that purpose in the way of large chemical and physiological laboratories, by rich natural history as well as pathological museums, and last, but not least, by the appointment of such men as Dr. Michael Foster and others to important chairs. Though not an alumnus of this university, Dr. Foster has undoubtedly shown himself to be one of the most advanced physiologists and able teachers of his time, and that his labours are appreciated is proved by the large class of earnest students daily at work under his superintendence in the practical physiology class room.

Addenbrooke's Hospital, although founded in 1740, has all the look of a recent erection. It was enlarged and remodelled in 1865, provision being made for 120 beds. Its position is airy and cheerful. It stands in a large garden of its own, having at the back of it the extensive grounds of Downing College, and is situate in one of the broadest and best roads in the town, in close vicinity to the university buildings and to the Fitzwilliam Museum.

Of the new wards, which occupy the extreme ends of the building, it would be difficult to speak too highly. They are bright, cheerful apartments, each having accommodation for 19 to 22 beds; the walls are painted pale-green, and decorated with bright and appropriate-coloured stencilling, designed by the architect, Sir Digby Wyatt. The lighting is effected by double windows extending to the roof, the upper sashes opening inwards, as well as by a large window at the extreme end of the ward, over the fireplace. Heating is further afforded by a double central stove, from which the smoke passes upwards, not as is usual by a single square stack, which impedes both air and light, but by four circular columns, having floriated capitals. The floors are scrubbed once a week. There are triangular iron brackets over each bed, so that the patients may raise themselves by the rope thereto attached. At one end of each ward, but separated by a passage and by double doors, are the lavatory, bath-room, and closets, all fitted up suitably and well ventilated, and at the other end the nurse's room, which has a window looking into the ward, so that she may see what is going on among the patients. There are also on the first floor two single-bedded wards and one double-bedded ward for the reception of such medical patients as it is desirable to isolate.

The first floor is devoted to medical, and the ground and second floors to surgical patients, the males occupying the right and the women the left side of the hospital.

The central block contains the administrative offices, the board room, and some few small wards. It is the older portion of the hospital, and has not the same airiness and brightness that the new laterally extended wings have. In it also are the lift, which reaches from the basement to the upper floor, and an evidently new fireproof iron staircase. This central block comprises on the upper floor the operating theatre, well lighted both from roof and front, in which the surgical clinical lectures are also given, and a spacious ward with four beds for operated cases, provided with a separate closet and lavatory.

There are no special wards for children, for burns (which are comparatively rare) or for syphilis; but, both for the medical and surgical patients, there are separate convalescent day-rooms. These apartments have large bay windows, and communicate with an open colonnade of five arches, which overlooks the front garden of the hospital, and here the patients may enjoy the sunlight and air away from their wards, and for a time free from the depressing companionship of those more afflicted fellow-sufferers who are confined to their beds. The medical convalescent room on the first floor is used by the physicians for their clinical lectures, and is amply large enough for thirty or forty students. The surgical wards have a single gas-burner, but the physicians have an objection to lighting their wards in that manner.

The out-patient department is at the right end of the hospital. At the back of it, in a block which runs at a right angle to the rest of the building, but joined to it by a passage, are the fever wards; and abutting on this passage are the house-physician's quarters. The wards each contain four beds; they are both small and dull, and are the only objectionable feature in the hospital. Not only are they in too close proximity to the main building and to the out-patient department, but they have below them a washhouse on the basement, and a laundry on the first floor. Though outbreaks of typhoid fever are not infrequent in and around Cambridge, the district is often particularly free from the disease, and these wards are sometimes unoccupied for months; at the time of our visit there was not a single patient in them. The removal of this department, nevertheless, to a detached building, and the isolation of it from the laundry, would be a great improvement in Addenbrooke's Hospital, and would take away the sole grounds of complaint against its sanitary arrangements.

Much might be said of the practice of the hospital. The high reputation of the staff ensures a large supply of interesting cases, and abundant material for clinical teaching. Although in an agricultural district, accidents are common, the majority coming from the Coprolite diggings in the neighbourhood. Fractures of the leg are treated by straight splints, starched bandages being applied at the end of the month. Fractures of the thigh are dealt with by the extension plan. Professor Humphry treats wounds after operation very successfully by leaving them entirely exposed to the air without dressing of any kind, by which proceeding is gained, at any rate, the advantage that the patient is freed from all the pain and distress attendant upon the dressing and redressing of wounds. Some wounds and ulcers he treats by closely covering them with strips of diachylon which have first been dipped in hot water. He states that not only does the plaster thereby stick better, but that its irritating properties are removed; over the plaster stypium is placed, and the dressing is disturbed as little as possible, usually not more than once a week. Stumps are for the most part circular, and carbolised ligatures are used. Hydatids have lately been frequently met with; we noticed one case of Dr. Paget's in which Dr. Humphry had tapped the liver by the aspirator some months previously, and hydatids had since been coming away from time to time. No injections had been used, and the woman (aged thirty-two) did not appear to have suffered much in health. Ague, which was formerly common in the district, is now comparatively rare, not more than one or two cases, we understand, appearing in the hospital in the course of the year. One rarely sees three cases of tracheotomy

simultaneously in any hospital, but Dr. Humphry had three at one time under his care, all undertaken for laryngitis, and all doing well. Excision of the knee is, as might be expected from the numerous cases reported from this hospital, a not infrequent operation. The horseshoe incision is made, and the patella generally removed. Temperature-charts are in regular use with all severe cases.

Enough has been said to show that Addenbrooke's Hospital presents in itself great capabilities as a clinical school, and that it affords a valuable field of instruction and experience for the medical students of the university.

SUMMARY OF

PAPERS READ AT THE MEDICAL SECTION OF THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

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THE Medical Section of the French Association was presided over by Professor Verneuil, the eminent surgeon of La Pitié.

Dr. Ollier, well known to the English medical public by his remarkable labours on the Reproduction of the Bones, read a paper "On the various Chirurgical means by which the Growth of Bones is Increased or Arrested." Dr. Ollier made many experiments on animals in order to ascertain the process under which the growth of bones takes place. He believes, with Flourens, that the intermediate cartilage is an important agent of their evolution. Some years ago he removed, in young animals, the intermediate cartilage of some of the long bones, and he obtained the following results:—Immediate arrest of the growth of the bone at the extremity from which the intermediate cartilage had been removed, the bone still growing on at the opposite end. Intense irritation of the cartilage gave results similar to those obtained by its removal. Dr. Ollier has also observed that osteitis, situate in close proximity to the cartilages, causes the bones to cease growing at the diseased extremity. If, on the other hand, a long bone be irritated in parts remote from its cartilages, it will increase in length; if a bone, still growing, be irritated in any part of its shaft, either by application of caustics or other means, the bone will increase in length from a sixteenth to a twelfth of its total length.

Some very convincing and well-prepared specimens of the results obtained on animals were exhibited by Dr. Ollier, and fully proved the correctness of his assertions.

Dr. Ollier has applied these physiological facts to practical surgery; he has operated on superficial bones, and employed, as an irritant, the Vienna paste, which he applies so as to reach the bone after the destruction of the integuments. On several occasions he has obtained a considerable increase in the length of the bones. He quoted the following case:—A young girl was admitted into his wards at the Hôtel Dieu of Lyons suffering from osteitis of the tibia adjoining the cartilage. On recovery this bone was found to be twenty-four millimetres shorter than the sound one. To the anterior surface of the shorter tibia Dr. Ollier made an application of Vienna paste. Some time afterwards he repeated the cauterisation, this time using the "pâte de Canquoin." The bone slightly exfoliated. Five weeks afterwards a slight increase in length was apparent, and three months and a half from the date of the operation the bone had gained in length thirteen millimetres.

Where a permanent irritation is required, it is necessary to repeat the application of caustic; the action of the caustic should be carried to the bone itself. The fibula need not be interfered with. The elongation of the tibia will cause the smaller bone to be dragged down with it; a partial dislocation takes place at the upper extremity, but the foot remains straight.

To arrest the growth of a long bone the cartilage should be partly destroyed, but without penetration into the joint. This arrest of growth is also obtained by the removal of a small piece of the cartilage; after these operations the wound must be carefully closed and the limb immobilised.

Dr. Ollier has performed this operation twice successfully. On one occasion a purulent osteitis of the radius near its intermediate cartilage had caused the bone to cease to grow, whilst the ulna, still increasing in length, had deviated the hand inwardly. All orthopædic means having failed, Dr. Ollier destroyed part of the cartilage of the ulna in order to arrest its growth; a few months afterwards the hand was already straighter, and ultimately it recovered its normal direction, as we were able to ascertain from plaster casts of the forearm taken before the operation and after recovery.

Dr. Ollier remarked on the numerous applications to surgery of this power to control the growth of bones; not only had experiments made on animals proved the correctness of his views, but clinical observations had demonstrated their practical value, and testified to their curative power in certain diseases of the bony structures of man.

Professor Chauveau, the able physiologist, to whom we are indebted for our present knowledge of the intricate nature of some viruses, made an extremely interesting communication "On the Transmission of Tuberculosis through the Digestive Organs." He called attention to this question as one of great importance to the public health. During several years he has made numerous experiments on animals. He administered tubercular matter with their food, and he arrived at the conclusion that the bovine race only is susceptible of contracting tuberculosis.

Professor Chauveau has repeatedly administered tubercular matter to calves; the animals continue in good health for about six weeks, but soon after that lapse of time they begin to lose flesh and ail. All calves to which tubercular matter was administered with their food presented on post-mortem examination evident and numerous signs of tuberculosis, some in an acute, some in a chronic form; the disease affects generally the lungs, and pervades to a variable extent the glandular system.

In order to show these facts to the members of the Association, Professor Chauveau prepared the following experiment. He purchased four calves. Two of them were born the same day and on the same farm, the other two were of about the same age and size, and came from farms situate in the vicinity of the first. They were brought to the Lyons Veterinary School on the 17th of June; until the 25th of that month they were all fed alike on milk and barley-meal. The animals thrived well. On the 25th he selected the two strongest calves, and administered to them, mixed with water, fifteen grammes of tubercular matter taken from the lungs, bronchi, and glands of a cow that had died of tuberculosis. This was again administered to both of them and in the same way on the 26th and on the 30th of June; on the 6th of July a fourth dose was given; this time the tubercular matter was mixed with flour to a pasty consistence, and made to be swallowed as boluses. During five weeks the calves continued in good health. At the date of the meeting (22nd August) one of the calves only was ailing; he had lost flesh and swallowed his food with some difficulty. The two calves not subjected to the ingestion of tubercular matter seemed in perfect health.

At Professor Chauveau's request a committee was appointed by the Medical Section to make a post-mortem examination of the calves. In their report the committee stated that they had found in the calves to which tubercular matter had been administered extensive infiltration of tubercles in the lungs and in many of the glands. In one of these they found deposits of tubercles in the cervical glands and a large tubercular ulceration in the pharynx.

The two calves to which no tubercular matter had been administered were also examined. Here also tuberculosis was present, but in a much more limited and less advanced condition. This fact, which at first sight seemed to disprove the views held by the learned professor, were found on investigation to strongly corroborate them, and afforded a still greater proof of the high contagious power of tubercular matter. Professor Chauveau had been absent for some weeks, and the feeding of the calves had been entrusted to one of his subordinates; the calves had been kept apart, as directed, but fed all of them from the same bottle. It is probable that some tubercular matter from the pharyngeal ulceration of one of the calves adhered to the mouth of the bottle, and thus inoculated the healthy calves with the

disease. In order to test the value of this explanation and ascertain if tuberculosis were not a common disease among calves in that neighbourhood, the lungs and glands of ten calves were carefully examined, and in none of them the faintest traces of tuberculosis could anywhere be found.

(To be continued.)

Foreign Gleanings.

INFLUENCE OF VARIATIONS OF PRESSURE ON VEGETABLES.

M. BERT having studied the influence of variations of pressure on animals, communicated to the Académie des Sciences (July 16th, 1873) the results of his inquiries upon the influence of variations of pressure upon vegetables. Germination, he finds, takes place more slowly in proportion to the lowness of the pressure, being altogether stopped when it diminishes to from four to ten centimetres, though grains thus rendered inactive do not die. The arrest of the germinating process is here evidently due to stoppage of the oxidation requisite for the development of the embryo, or, in other words, to the too feeble tension of the oxygen. Seeds placed under a pressure of two or three atmospheres seem to germinate somewhat more rapidly and vigorously than those in air of ordinary pressure, but if the pressure be augmented to four or five atmospheres, germination is obviously interfered with, especially in seeds the albumen of which is farinaceous. Finally, in air at a much higher pressure seeds are killed, even when germination has begun. This appears to be due exclusively to the too great tension of the oxygen, and is much more evident in farinaceous seeds than in others. If the changes that have taken place in the compressed air be compared with those in air at normal pressure, the consumption of oxygen will be found to be much less in the compressed air. Thus in one case, in four days, 10 grammes of barley germinating in ordinary air consumed 225 cubic centimetres of oxygen, whilst a similar quantity placed in air superoxygenated to the extent of 2·5 atmospheres, corresponding to a tension of 11 atmospheres of air, consumed only 136 cubic centimetres. Thus it appears that an excessive tension of oxygen retards germination.

INFLAMMATION OF THE THORACIC CANAL.

Dr. Chouppe, of Paris, has just published a thesis in which he has collected five cases of the above rare and, as yet, not well known affection. The five cases collected by Dr. Chouppe are the only ones hitherto placed on record. In three of the cases the inflammation was secondary, and, in two, primary. In order to distinguish this latter form from the former, Dr. Chouppe has conducted a series of experiments on animals. The points brought out by the two cases and by the author's experiments are very interesting. In both cases the inflamed thoracic canal had thrown a quantity of pus into the general circulation through the subclavian vein, and it might be said that the patients had had a sort of pyæmia through an internal course; yet, during life, typhoid fever, meningitis, and articular rheumatism were successively suspected, whilst purulent infection was not even thought of. Another point of interest was the obliteration of the subclavian vein in one of the cases; it could only, however, have occurred during a late period of the disease, as symptoms of pus in the blood had been previously observed. Notwithstanding the great importance of the thoracic canal, as conveying all the chyle produced by digestion, and the most part of lymph, no disturbance in the digestive organs or in the functions of nutrition was observed. Moreover, Dr. Chouppe stated the existence of pulmonary infarctus, caused, according to him, by the pus producing embolisms. The other symptoms were redness of the surface in various parts, inflammation of the sheaths of tendons, and of several joints. In both primary cases the onset of the disease was sudden; in one case it came on with violent pain in the stomach and intense fear; in the other, with a violent and protracted fit of rigor. In the two cases these symptoms were followed by high fever, prostration, loss of strength and flesh.

Dr. Chouppe has arrived at the following conclusions on the important question which he has investigated:—Primary inflammation of the thoracic canal does exist; it is attended by general symptoms of purulent infection and by local symptoms; it cannot be diagnosed as yet during life by the help of known symptoms, but its presence may be suspected; it is likely that it has been sometimes overlooked, and that it occurs occasionally.

UNILATERAL PULMONARY APOPLEXY DEPENDENT ON CEREBRAL HÆMORRHAGE.

In the number just published (for August) of the *Archives Médicales* there is an interesting paper on the above by Dr. Ollivier. The author has observed three unmistakable cases of the dependence of pulmonary apoplexy on hæmorrhage of the brain, not to reckon other cases in which the connexion of the two sorts of lesion was less evident. In all three cases the pulmonary apoplexy occupied the same lung as the paralysed side, and, consequently, that opposite to the cerebral lesion. In all three cases it was the left cerebral hemisphere that had suffered hæmorrhage. From these observations, and others of a similar character, Dr. Ollivier concludes that, under the influence of cerebral hæmorrhage, various lesions may develop in the lung corresponding to hemiplegia—namely, more or less intense and extensive congestion, considerable sanguineous effusions under the pleura, or else true apoplexy. This apoplexy may be either diffuse or circumscribed. Again, there may exist hypostatic pneumonia. It seems that the considerable extent of the hæmorrhage, and the contact of the blood with the pia mater and arachnoid, are influential in the production of unilateral pulmonary apoplexy or congestion. It is likely that other affections of the brain (tumours, softening, &c.) may, under certain circumstances of situation and extent, produce the same lung lesions. These lung lesions may supervene rapidly after the attack of cerebral apoplexy (in one case dulness on percussion was observed nine hours after). It is likely that, according to Dr. Brown-Séquard, the connexion of the head and lung lesions is through the vaso-motors, and that the lung apoplexy is due to simultaneous contraction of the veins and arteries pushing forcibly the blood into the capillaries. Dr. Brown-Séquard, it may be added, upholds the view that the vaso-motors of the thoracic and abdominal viscera do not come from the medulla oblongata, but from the pons Varolii and adjoining parts.

VARIX OF THE SUPERIOR LONGITUDINAL SINUS OF THE DURA MATER.

This case is recorded by Dr. Meschede in Virchow's *Archiv*, Band 57, Heft 3–4, 1873. The patient had been an epileptic sufferer from the age of six years, had always shown a weak mind, and became insane towards the age of twenty-six. He had often had cerebral congestion, with rise of temperature in the head and abundant sweats, especially in the situation of the vertex, from which veritable vapour was often seen to rise. He died from meningeal apoplexy at the age of thirty-seven. At the post-mortem enormous distension of the veins of the pia mater was discovered, and in the situation of the vertex there was found a tumour of the size of a white bean, full of coagulated blood, lodged in a cavity bored out in the cranium, and communicating manifestly with the superior longitudinal sinus. It was a true varix.

PROGRESSIVE MUSCULAR HYPERMEGALIA.

By the above name Professor Orsi designates a case of Duchenne's "myo-sclerosic paralysis"—a term which he likes less than his own for defining the pathogeny of the disease. The case is described in a number of *La Gazetta Medica Lombardia*. Dr. Orsi recommends for the treatment of the disease the following:—Faradisation of the diseased muscles, passive exercise, nitrogenous food, and a mixture of carbonate of iron and nux vomica.

OCCLUSION OF THE EUSTACHIAN TUBE.

Dr. Rudinger, in *Monatschrift der Ohrenheitkunde*, No. 3, 1873, after a series of experiments carried on upon himself, has arrived at the conclusion that the Eustachian tube is habitually closed. When it is accidentally opened through a contraction or cramp of the dilating muscle of the tube, the voice has a peculiar sound for the person who is speaking, and resumes its natural sound only when the tube is again closed.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 20, 1873.

DURING the past three or four weeks the information procured and recorded as to the progress of cholera in Europe has been of so fragmentary a character that no little care and industry are required in picking up the pieces and putting them in their proper places. As the disease has made its way westward the difficulties in obtaining true records of its march have increased. We know enough, however, to show that it has now, as on former occasions, proceeded, with some slight variations, in a pretty direct line as it has approached our shores. Taking at first the shore line of the Baltic basin, the disease has attacked successively the inhabitants of Cronstadt, Memel, Konigeberg, Dantzic, Stettin, Copenhagen, and Elsinore. We know, too, that it has crossed the Sound from the last-named place to Helsingborg on the coast of Sweden, and that already a small village in the neighbourhood of that port, with a population of only 2400 inhabitants, has lost more than 150 persons from the epidemic. Its existence at Stockholm at the present time is officially denied. Proceeding round Jutland to the mouths of the Elbe and Weser, it is found that Hamburg and Altona have both suffered, and we believe Bremen also, though to a slighter extent. No news has reached us as to any outbreak near the mouths of the Ems, Rhine, Maas, or Schelde; but the commercial importance of these rivers is infinitesimal as compared with those on the North German coast. When the French frontier is reached, news as to the spread of this or any other epidemic is now, as always, very uncertain, and by no means trustworthy. Our Gallic neighbours appear to have a morbid reluctance in giving intelligence as to such matters, and perhaps do not like telling unpleasant truths, especially when they affect themselves. There can, however, be little doubt that the inhabitants of Havre have been severely attacked; and by the time that THE LANCET of this week is published, it is greatly to be feared that confirmatory news from Paris will show that the disease has found its way up the Seine to that capital. In continuance of our recapitulation, we may now pass to the southern coasts. The middle and south Danubian ports—as Widdin, Rustchuk, Silistria, Ibraila, and Galatz—have all been more or less infected; and indeed Widdin was the first European port in which the presence of cholera was discovered this year. Odessa and Varna are said to have been invaded, but we have as yet no positive evidence on this head. The malady seems to have passed away from Constantinople. Greece boasts that she keeps it out by a rigorous quarantine, but there appears to be little doubt that it has naturally enough found its way into Trieste and Venice, the only ports of any importance in the Adriatic. Proceeding westward, and doubling the Italian promontory, we come upon Genoa, another southern port. And here the coast line of march appears for the present to terminate—so far, indeed, as we are informed, having regard to the excessive reticence of French and Spanish authorities in such matters.

The epidemic has, as we know, penetrated inland, notably to Berlin and Vienna (as well as to many other smaller towns); but we prefer to put before our readers this general geographical summary of the various places attacked severally on the shores of the Baltic and Mediterranean seas, and to point the moral on which it is evident that our preventive lines of action should persistently be framed. It requires no special acquaintance with the commerce of this country to know that the places above indicated, north and south, are, without any exception, chief trading ports in Europe; four, on the land side, grand termini of railways, and, on the water side, foci from which lines of steamers and other vessels regularly radiate, and to which they as regularly converge. When Mr. NETTEN RADCLIFFE, in his admirable report on the Recent Diffusion of Cholera in Europe, showed us that the extension of railways and the union of the East and the West by their means meant at the same time the extension of epidemic cholera, he showed also that our insular position does not, in an exceptional manner, protect us from danger; for, inasmuch as we can, and probably always shall, find ships to carry all that the continental railways bring us, in our case "the seas but join the nations they divide." And so we must look to our port sanitary authorities for special means of protection. London is just now made a port of call by some of the North German emigrant steamships, who prefer, naturally enough, to come up and dock in the Thames for forty-eight hours to performing three days' quarantine at a French port. But this commercial line of action indicates danger to the metropolis; as these vessels, and the emigrants carried in them, invariably come from suspected or infected Baltic ports. And, again, it appears to be the practice to embark French emigrants at Havre, land them at Southampton, and send them by rail to join ship in London. So that London has now its stream of emigrants from within by way of Southampton, as Liverpool has for some time enjoyed a similar series of arrivals *vid* Hull and Grimsby. We know that cholera was once brought to us direct by this latter route; and we know, too, that London has recently had a narrow escape. The City corporation, as the port sanitary authority, is now, we believe, very much on the alert; and DR. TRENCH, the able and energetic health officer of Liverpool, keeps his staff in admirable working order. It would be satisfactory to know if the authorities were equally active at Southampton; for a case reported in another column would seem to indicate a desire to copy the tactics adopted on the other side of the Channel. Until the winter season has fairly set in, no pains should be spared in our eastern and southern ports to prevent an importation of the disease; for although in its embryonic stage it may be difficult to detect, it comes free of duty, and *must* arrive by waterway.

THE late intelligence from the Gold Coast has been such as to give a fresh impetus to the preparations that are being made by the home authorities. We may boldly state that the line taken by us has been far in advance of that advocated elsewhere. It must be a relief to Sir GARNET WOLSELEY

—if he read the journals and noted the adverse tone which, with two or three exceptions, they adopted in regard to the expedition—to feel that he has started, and will soon be putting his shoulder to the work set before him. We have nothing whatever to do with the political aspect of the question. Whether the Government be right or wrong in the course they have adopted is not for our consideration. It is with the expedition in its sanitary and medical bearings that we are alone concerned; and from these points of view the forthcoming campaign against the Ashantees is likely to be an interesting one. It is a doctor's campaign in this respect—that we know the inimical nature of the climate, and the execrably insanitary state of our military stations there; and the question is how far recent advances in army hygiene will enable us to cope with and overcome these difficulties. At first sight nothing can well appear more unpromising. The seat of warfare is in a notoriously malarious climate, and the stations occupied by us on the seaboard are unhealthy with an unhealthiness of their own. Our enemies are savages, wily and brave, with a knowledge of the country, and an experience in bush fighting; and our allies are timid tribes that have become disaffected or demoralised by repeated defeats. The experience of former campaigns in the same country has not tended to raise our prestige; and the alarming amount of sickness and mortality that occurred among the unfortunate body of Marines but just arrived from the Gold Coast in this country has not diminished the fears generally entertained as to the perilous nature of the climate. While it would be absurd to pretend that the undertaking on the execution of which Sir GARNET WOLSELEY has started is anything but a hazardous one, we still feel convinced that its dangers have been exaggerated. For all we know to the contrary, the most pestiferous portion of the climate may be that in the vicinity of the seaboard and bush. Once these have been passed and the open country has been reached we have every reason to hope that the main climatic dangers will have been surmounted. It was on this account that we urged the construction of a single line of rail on the narrow gauge system; and we are still of opinion that this would be the most direct and practicable, if not the most economical, way of overcoming the difficulties as regards health and transport. Our possessions in Africa are relatively insignificant. We know next to nothing of the country and its resources; and it is not only possible, but highly probable, that the high lands of the interior are healthy and abound in good pasturage. Why should we be doomed to occupy the worst places of a bad climate, and be subjected to a chronic kind of warfare, attended every now and then with acute exacerbations? Africa is intimately associated in most people's minds with ivory, niggers, and palm oil; but there are, no doubt, mineral and other resources in the interior of which we as yet know nothing. It is the fashion to speak of the Ashantees as if they were a tribe of noble savages. They may be as brave as is said, which we very much doubt; but their cruelties are revolting in the extreme, and their military power and prestige are the curse of all the neighbouring tribes under our protectorate, especially of those engaged in peaceful and agricultural pursuits. We occupy our African possessions out of deference to Exeter Hall feeling, in order to repress the slave trade. It might be well to repress these savages by opening out the country by means of roads, rail, and the like evidences of civilisation. Be this as it may, it is clear that roads will have to be cut through the bush sufficiently wide for our troops to pass through with facility and with relatively small danger from ambuscades. The principal difficulty to be overcome will be that of transport. The road through the bush which now exists extends but a short distance, and then degenerates into a kind of sheep-walk. The bush, by the way, is not of the stunted description of vegetation that many persons imagine, but reaches a height of from six to ten feet, and the cutting a road through it will prove no easy task, if it has to be executed, as it must, before January to admit of the conveyance of stores and the transit of troops. From the activity that prevails at Woolwich and Deptford it is evident that the Government has taken up this expedition in earnest. It would be impossible, we think, to squander away as much money on this little war as was done on that of Abyssinia. The Indian authorities conducted the latter, and they have the character of doing things with lavish expenditure. This Ashantee affair will be relatively costly no doubt; but it need not be done extravagantly. The way to be economical is to arrange everything beforehand, to have the transport and commissariat arrangements perfected, to select the soldiers with the greatest possible care, to disembark them for the work at the right season, and remove them from the climate as soon as they have done it. The method of preserving the health of troops during a campaign is much the same everywhere; but the general rules require to be religiously respected in the present instance, and to be supplemented by a few additional ones of a special character. It may seem a platitude to say that the first essential is good food and plenty of it, but this cannot be had without depôts for storing and distributing supplies; the next essential is good clothing and protection against wet and chills, by flannel under-garments, waterproofs, and the use of the *tentes d'abri* where huts cannot be obtained; and the third is quinine, of which a large amount has been already shipped for Cape Coast Castle. The presence of experienced control officers is necessary, for everything must depend upon the control management not giving way. The troops, whether European or not, should be well clad in flannel and serge, fed on fresh provisions as far as practicable, not overworked or fatigued, but kept changing their ground from day to day; and the strictest discipline will be required to guard them against intemperance and the abuse of stimulants. We notice that the materials for huts are being forwarded to the Gold Coast; and we earnestly hope, if it should turn out that any European regiments are to be sent from this country, that they will not be quartered in such places as Cape Coast Castle and Elmina. In addition to the naturally malarious character of the soil of these stations, it must be confessed that we have done all we can, artificially, to increase their insalubrity. Their drainage is execrably bad, the accommodation for the military utterly inadequate and of the worst description. Detention in places of this kind implies a rapid deterioration of health, if not actual disease.

Like a prudent man, Sir GARNET WOLSELEY has gone out as an *avant courrier* to the Gold Coast to see with his eyes and hear with his ears the actual condition of things, and to shape his course accordingly. We may feel sure that he will employ as few European troops as practicable, and utilise the Houssas, native forces, and West Indian soldiers to the utmost. He may find the construction of a railway for military purposes impracticable or unnecessary; but we hope he will not be deterred by any expressions of opinion on the part of those in this country who incur none of the risks and share none of the responsibility of the undertaking, from asking the Government for this or anything else he really requires. If the thing has to be done, let it be done thoroughly and once for all. There is a very able and experienced medical officer at the head of affairs on the spot, and, if we may judge from the character of the supplies sent out from this country, and the preparations that are being made, the medical service at home is fully alive to the difficulties that have to be met and overcome if this Ashantee expedition is not to be the miserable failure and disgrace that so many people prognosticate it will be.

A SLIGHT sketch of the progress in Chemistry made during the early part of the present year is suggested to us by the interesting address delivered by Professor WILLIAMSON at Bradford. This progress has, indeed, been amazing. Nearly a thousand original papers have been published in the scientific journals of Europe and America; and although few striking discoveries appear among them, a vast amount of valuable work has been accomplished, both in the collection of new facts and in the production and development of theories.

Germany, as usual, takes the lead; and, judging from the number of new names that we meet with in her journals, she is in no present danger of losing her position. Next comes France, which, since the termination of the war, has recovered her intellectual status with a rapidity that is scarcely less wonderful than the material revival that has so greatly astonished the world. The position of England in the honourable race is far less satisfactory; for, in spite of some recent improvement, her share in chemical discovery is still somewhat disgracefully small considering the size and wealth of the country and the vast importance of chemistry to its manufactures. We will not attempt to discuss all the causes of our unsatisfactory position in this respect; but one or two are so patent that they can hardly be passed by even in so slight a sketch. The first undoubtedly is the deplorable apathy of our universities in regard to research. They persist in limiting their functions to the preparation for, and granting of, degrees; setting as their sole standard the attainment of a certain amount of knowledge, and neglecting altogether to furnish the special training which leads to original research or to offer inducements for its exercise. It is quite painful to think of the good scientific work which might flow from Oxford or Cambridge if only a small portion of their vast powers were put forth in its behalf.

Another cause of the dearth of chemical research in England is to be found in the inertness which seems to come over so many of our best men when they have once won name and position. With powers in the fullest vigour, and with advantages for research which are denied to all but the very few, their energies suddenly flag, and they fall behind in the race, contented to dwell with past laurels. How long is it, for example, since any chemical discovery has come to us from University or King's College, from the once famous Royal Institution, or from the Royal College of Chemistry? There is, perhaps, something of ingratitude in writing thus of men to whom science is so much indebted as to WILLIAMSON, FRANKLAND, and ODLING; but, knowing how much such men could still do for the honour of English science, it is impossible for our gratitude to be wholly untinctured with that "lively sense of favours to come" which has been said to be its main element.

The promising field of physico-chemical research has of late yielded valuable fruits. The indefatigable BERTHELOT has investigated the state of salts in solution by two distinct methods, which have produced tolerably concordant results. He has proved that a solution of sodium acetate is entirely decomposed by dilute hydrochloric, oxalic, or tartaric acid; that acetic acid does not displace any chlorine from chlorides, or ammonia any potassium or sodium from their acetates. These points were uncertain before, many chemists holding that in such cases a partial decomposition took place. JULIUS THOMSEN, of Copenhagen, between whom and BERTHELOT an important controversy is waging, has redetermined the affinity of hydrogen for some of the non-metals, and particularly for carbon, with some highly interesting theoretical results. DEWAR has found that the specific heat of carbon at high temperatures is much higher than at low—approximating, in fact, to that which is required by the hypothesis of DULONG and PETIT. ROBERTS and WRIGHT have investigated the curious compound of hydrogen and palladium discovered by GRAHAM. They regard it as analogous in some respects to a *solution* of hydrogen in the metal. Dr. WRIGHT, of St. Mary's Hospital, has been a zealous worker, contributing no less than three papers to different departments of chemistry. Lastly, several very interesting results have been obtained by the action of the silent electrical discharge in gases. Hydrogen is found to combine directly with nitrogen and with sulphur under these circumstances, ammonia and sulphuretted hydrogen being respectively produced. Hydrogen in the pure state acquires active properties, and becomes capable of reducing oxide of silver without heat; it behaves, in fact, like *nascent hydrogen*, owing possibly to the formation of some allotropic modification of the element analogous to ozone. And Sir BENJAMIN BRODIE, whose retirement caused by ill-health all chemists deplore, has discovered that pure carbonic oxide, when submitted to the same form of electrical discharge, yields carbonic acid and two or more acid oxides of carbon lower than any previously known.

In the department of inorganic chemistry we find a laborious investigation of the hypophosphites by the veteran RAMMELSBERG; another by G. GORE, of Birmingham, on the properties, and particularly on the solvent power, of liquefied ammonia; and some experiments by ROUTLEDGE on the much-debated ammonium amalgam, which appear to prove that this curious substance is really an amalgam, inasmuch as it gives off in decomposition two

volumes of ammonia for one volume of hydrogen. SCHÜTZENBERGER, who not long ago discovered the true hyposulphites, differing from the sulphites by containing an atom less oxygen, has ingeniously applied the sodium salts to the estimation of the dissolved oxygen in water and blood, with results that promise great simplicity.

Most of the new discoveries in organic chemistry would be uninteresting to our readers, who can hardly be expected to care much about such compounds as *amidomonochlorobenzinesulphonic acid*. LADENBURG and FRIEDEL have discovered a fresh series of the interesting bodies which resemble alcohols, ethers, and acids, but with silicon instead of carbon as the dominant element. WISLICENUS, of Zurich, has shown that lactic acid cannot be evaporated without partial conversion into anhydride, and that the so-called lactic acid is therefore always a mixture of acid and anhydride. LIMBRICHT communicates the results of five years' study on mucic and pyro-mucic acids. BAEYER has a valuable paper on the compounds of the phenols with the aromatic hydro-carbons; URECH an equally valuable one on the cyanogen derivatives of acetone; and dozens of others might be quoted.

Space precludes us from noticing in this article the many important contributions to physiological chemistry which have appeared in the present year. We observe with pleasure the familiar names of C. VOIT, BRÜCKE, and PASTEUR, in addition to some new ones, which show that this most interesting field of research is not allowed to lie fallow in Germany and France, whatever may be its fate in England.

Medical Annotations.

"Ne quid nimis."

"CONSULTING" VERSUS "COMPLIMENTARY" PRACTICE.

PERHAPS the good people of Wellington in Somersetshire are better up in the definition of "consulting practice" than many in London who think they know all the varieties of practice. There has been an interesting lawsuit in the Wellington County Court, to which the inhabitants are indebted for their information as to the meaning of "consulting practice." The dispute between Mr. Pearse and Dr. Bridge, which led to the lawsuit, may be shortly stated thus:—Dr. Bridge is a practitioner of old standing in Wellington, his qualification dating back as far as 1812. In the year 1867 Dr. Bridge was desirous of disposing of his practice, and accordingly an agreement was entered into with Mr. Pearse, who wished to obtain a practice, that Mr. Pearse should purchase from Dr. Bridge the goodwill of his practice. The agreement was in substance that the plaintiff should pay £900 for the goodwill, in three sums of £300 a year for three years; that Dr. Bridge should continue in practice for those three years and introduce Mr. Pearse to his patients; and at the end of that term, if Dr. Bridge wished to continue in practice, he should only do so as a consulting practitioner. At the end of this term an additional arrangement was entered into by which Dr. Bridge undertook to continue in practice along with Mr. Pearse, the latter taking the whole of the fees arising therefrom, and paying to Dr. Bridge £150 a year as a fixed remuneration for his services; but there was a proviso that this might be terminated at a month's notice, and in this case Dr. Bridge was to practise only as a consulting practitioner, the fees arising from such consultations to be *divided equally between the two*. That agreement lasted until the middle of 1871, and in June of that year, in consequence of some disagreement, Dr. Bridge wrote to Mr. Pearse expressing his desire to terminate their agreement, whereupon, the notice having been given and accepted, the clause at the end of the two agreements came into force, and Dr. Bridge was to practise only as a consulting practitioner. In the course of time Mr. Pearse understood that Dr. Bridge was in the habit of *seeing patients without the intervention of another medical gentleman*, and that, in fact, he was continuing to a considerable extent his original pursuits. Mr. Pearse considered Dr. Bridge was not acting solely as consulting practitioner, but taking general practice also, and he brought the present action to recover £50 for breach of agreement.

The whole controversy in court turned on the definition of consulting practice, and on the answer to the question whether seeing patients continuously throughout an illness in the ordinary way was "consulting" practice. Every variety of opinion as to the meaning of "consulting" practice was expressed, one set of witnesses contending that a consulting practitioner "was one who only gave advice to patients after conference with the ordinary medical attendant"; the other set contending that the intervention of a second practitioner was not essential. Dr. Shapter, of Exeter, was of opinion that a consultation was not between two medical men, but between the medical man and his patient. Mr. Gay, of London, is reported to have said, "in my opinion a consulting practitioner is one who sees patients without the intervention of another medical man." But doubtless Mr. Gay would admit that consultation in the high sense of the word is a conference between two or more practitioners." All the witnesses were agreed that a "consulting" practitioner in the sense of a practitioner who never sees a patient without the intervention of another medical man does not exist, or, at any rate, is invisible, even in London. Nevertheless, we heartily concur in the judgment for the plaintiff given in the very sensible address of the judge. Dr. Bridge admitted having attended old patients continuously without the intervention of another practitioner, and without receiving the fee which, after all, is the most differentiating feature of the consulting practitioner. "When I attended, and did not charge fees, the visits were put down as complimentary visits." This was virtually seeing patients on old terms, and a breach of the contract. Whatever the expression "consulting practice" does mean, or does not mean, it means "something different" from the ordinary attendance on patients on ordinary terms, which Dr. Bridge agreed to desist from in his contract with Mr. Pearse.

METROPOLITAN SLAUGHTERHOUSES.

QUITE recently there has appeared a Blue-book containing the Report of a Select Committee appointed last session to consider the operation of two clauses in the Metropolis Buildings Act of 1844, which enacted that after the lapse of thirty years—that is to say, in 1874—certain trades were not to be carried on in London except under conditions which in a majority of cases would be prohibitive. Among these trades cattle-slaughtering was included, and the Metropolitan Board of Works appear to have rather suddenly awoke to the knowledge that they would be required next year to take measures for the suppression of the greater part of the private slaughterhouses in London—an undertaking which was no doubt embarrassing enough on so short a notice. Accordingly, by their representative, Dr. Brewer, they promoted a Bill in Parliament last session

for withdrawing slaughterhouses from the operation of the Buildings Act. The subject was then referred to a Select Committee, who took a considerable amount of evidence from practical men, medical as well as lay, and eventually came to the conclusion that the slaughterhouses should be exempted from the Act of 1844. The Medical Officer of the Local Government Board and the medical officers of health for the City of London and for Whitechapel were strongly in favour of letting the Act take its course. But this view was not entertained by the Committee. On the contrary, they seem to have taken the improved sanitary condition of the slaughterhouses of late years as indicative of the capability of such places of being rendered innocuous; and they were evidently far more strongly impressed with the fear of interfering with the trade of cattle-slaughtering than with any probable danger to health arising from the existence of slaughterhouses in crowded neighbourhoods. All they think necessary is that the provision of public abattoirs should be encouraged, that no new private slaughterhouse should be allowed in the central parts of the metropolis, and that all existing ones should be subject to precise, stringent, and uniform regulations. Dr. Brewer was unable to get his Bill passed last session, and it remains to be seen whether he will be more successful next year. If he is not, and if the Legislature does not intervene before then, in August next the larger portion of the existing private slaughterhouses will have to be closed. The Cattle Markets Committee of the City Corporation have had the matter under consideration, and they report, what is obvious enough, that unless something be done the provision for the slaughter of animals required for the food of the metropolis will be very inadequate indeed. So they recommend that the Common Council should enlarge their abattoirs at the Cattle Market in provision for the emergency. There are about 1300 private slaughterhouses in the metropolis, exclusive of the City.

It cannot be doubted for a moment that the use of public abattoirs, as compared with private slaughterhouses, is advantageous in many respects, notably as regards cleanliness, space, and supervision. And although a temporary inconvenience might arise from the summary extinction of the slaughterhouses, we believe, with Mr. Simon, that, supposing the Act of 1844 to be left untouched, private enterprise will not be long in satisfying the needs of the metropolis in respect of slaughtering accommodation. The butchers notwithstanding, it is by no means established that slaughterhouses in crowded London streets are evils which must be put up with for no better reason than that they exist, and that to remove them would inconvenience the butchers.

PETTENKOFER ON FOOD.

In a letter to Joseph Bennert, of Antwerp, Pettenkofer enters into an elaborate exposition, or rather vindication, of Liebig's extract. Like all alimentary novelties, that renowned preparation has had to fight its way into popular acceptance through at least two initial prejudices: first, a suspicion as to its wholesomeness, to use no stronger phrase; next, a scepticism as to its possessing any specific virtue whatever. Both these barriers the extractum carnis has at length surmounted, though three-and-twenty years have elapsed since its discoverer first produced it in the royal laboratory at Munich. How little its assailants understood the object of their attack may be inferred from the charges they brought against it. "The extract," said they, "containing as it does neither albuminoids, nor fat, nor hydrates of carbon, is not an alimentary substance." Of course it is not. It was precisely on the principle of eliminating from the extract every particle of albumen, of fat, even of gelatine, that Liebig proceeded. And with what result? To produce, not an alimentary substance strictly so called, but a condiment which has a distinct and unique place in dietetics. The *rôle* of condiments in the complex action of nutrition is but partially appreciated, and the most natural condiments are usually neglected for others much coarser, more stimulating, but really less efficacious. Voit, the most recent experimenter in dietetics, confirmed the popular impression that the flow of gastric juice to the walls of the stomach may be accelerated even by the sight of meat, as when he witnessed in a fasting dog, in which he had established a stomachic fistula, the immediate rise of the juice when he offered, without giving, the animal a bit of meat. Bouillon, he further maintained—warm and well-boiled bouillon—is the simplest and best digestive, and it is from this premise that Pettenkofer vindicates for the extract its paramount claims as a condiment. These it owes to the mixture of salts, different, indeed, but combined in definite proportions, in a ratio which the organism imperatively demands, and the slightest deviation from which would constitute a veritable impurity. No amount of the best meat can take the *rôle* of the extract any more than milk can play the part of cheese or butter. The product of Liebig is neither a nutrient nor an alimentary substance capable of economising the albumen, the fat, or the carbo-hydrates; it is simply a condiment, but one of such efficacy that Pettenkofer does not hesitate to anticipate for it the chief place among such aids to digestion, not only in the sick-room, but in common everyday life. It has served him as a text for a very instructive essay on nutrition in general, and though much that he says is recapitulation, it is recapitulation of a kind that has a novelty of its own from the clear and discriminating eye he passes along the series of discoveries bearing on the physiology and application of food.

THE THAMES MYSTERY.

The public has, happily, in the course of thirty years learnt to dissociate the medical student from the Burker, who may now be fairly said to be extinct. But, as recent events seem to show, there is still a tendency to make the student the scape-goat of any horrid murder or frightful mutilations. This is to be regretted for more reasons than one, but chiefly because it interferes with the course of justice, by leading it off its proper track. To those who know the workings of the Anatomy Act, and the severe legal restrictions on obtaining bodies for purposes of dissection or operative surgery, it must appear absurd in the highest degree to suppose that the recent mutilation was a hoax of medical students. There is very strong evidence that the woman met with a violent death, and that in the first instance severe blows were dealt on the right side of the head with some heavy, blunt instrument; but, in the absence of the skull, it is impossible to determine positively the extent of the injury. It would appear that after the victim had thus been stunned the body was immediately deprived of all its blood by a section of the carotid arteries in the neck, since there were no clots in any of the veins of the body. The tissues were, moreover, divided while they still preserved their vital contractility, for, according to the evidence of Mr. Kempster, the muscles in the portions of the body that were first examined were fresh and retracted, so that death must have occurred within a very few hours. The scalp and skin of the face were probably next removed by making a longitudinal incision through the scalp at the top of the head and a horizontal incision behind. The skin and pericranial tissues were then forcibly drawn forward and the skull thus laid bare, occasional touches of the knife being necessary to remove

the skin of the face. Where the integument was thin or firmly adherent to the subjacent tissues, it was "buttonholed," and large portions thus remained attached to the bones. The face has in this manner—accidentally, perhaps, rather than purposely—been rendered incapable of identification. The upper part of the nose is absent, as well as the inner part of the right cheek and the lower lip and chin, all of which would have required some time for their complete removal. Contrary to the popular opinion, the body has not been hacked, but dexterously cut up; the joints have been opened, and the bones neatly disarticulated, even the complicated joints at the ankle and the elbow, and it is only at the articulations of the hip-joint and shoulder that the bones have been sawn through. In the trunk the sections have all been made in the most favourable parts. This is clearly shown on the left side of the trunk, for after the body had been divided longitudinally, the right side was severed into three portions, a thoracic, an abdominal, and a pelvic. To make these divisions, an incision had been commenced too high, and the knife coming in contact with the lower part of the costal arch, a fresh incision was therefore made lower down, in order to clear the ribs.

Notwithstanding the fact that Mr. Haden has skilfully adjusted the various parts of the body that have up to the present time been found, we fear that identification is next to impossible, except to those who are accurately acquainted with the very few marks which the body presents—namely, a scar as of a burn on the thorax, which, however, is very common in girls and women; a small prominent fibroma, which in the official description of the body is said to be a pale mole, on the inner side of the right nipple; and the cicatrix over the inner condyle of the right femur. It is not a little remarkable, however, that although the right leg between the knee and the ankle is perfect, on the left side the leg has been sawn in two, and only the upper part has been found. It is possible that there may have been some mark on the lower portion of this leg, which the murderer has taken the precaution to destroy. The hands also are, unfortunately, missing. It appears that much importance is attached to the evidence of the woman having recently had a child or not; and although the uterus is very small and firm, and the areolæ around the nipples are pale, it would be well to have this part of the question carefully reconsidered.

It is clear, then, that this is not a practical joke, and such an hypothesis must appear preposterous if, in addition to the evidence that the death was a violent one, it is borne in mind that the body bears no trace of dissection, or of having been used for operative surgery; for although we have said that the bones have been skilfully disarticulated, it is in a manner different from what obtains in the performance of any operation, for there are no flaps. Further, there is the distinct statement of the Inspector of Anatomy that no body was given out by him for anatomical purposes during the week in which the mutilated remains of this woman were discovered; so that no recent body could have been obtained from any of the dissecting rooms, all of which are indeed at present closed.

ANOTHER PROVIDENT DISPENSARY IN COURT.

A FEW days after noticing the discreditable condition of a Provident Dispensary worked by an unqualified assistant under the protection of two practitioners, both of them apparently residing at a distance, we have to notice another and very similar case in the Clerkenwell Police Court. On the 4th of September, Mr. H. Ker, 110, Copenhagen-street, was charged on a summons before Mr. Cooke with having falsely pretended to be a legally qualified practitioner. The alleged false pretence was practised at what is called the "Caledonian-road Provident Dispensary," where Mr. Ker prescribed for patients under the protection of Mr. T. M. Harding, of Guildford-street, Russell-square. There was a small handbill, as in the other case, in which Mr. Harding is described as the surgeon, and "Dr. H. Ker" is said to be resident medical officer. "The peculiar advantages of the institution will be seen at once"—we quote from the handbill—"from the following:—Subscription: Medicine and advice, one shilling weekly, during the illness only. Home visitation, if necessary, three shillings weekly, during illness only," &c. &c. A witness appeared to prove that at the dispensary he was seen and prescribed for by "Dr. Ker"; and it was alleged that, though the defendant's name was not on the Register, he had served his time, and was fully qualified to act as a surgeon, the "full qualification" of the defendant appearing to consist in the possession of certificates from the "Philadelphia" College. We have always advised gentlemen who have the misfortune to possess Philadelphia degrees to make a profound secret of the fact. Mr. Ker will probably do so for the future. He was fined £5, on the ground that, not being registered, he had used the title of "Dr." on the strength of a foreign degree. "No foreign diploma," Mr. Cooke said, "would give the defendant the right to use the title." Mr. Cooke added, "even if a person is registered and assumes a higher title he commits an offence against the Act." If Mr. Ker uses the title again on the strength of a perfectly worthless "bogus" degree, he will doubtless be fined a larger sum. Mr. Harding has not much reason to feel satisfied with his part in this case. He said that he did not authorise the defendant to assume the title of "Dr."; and he wished the defendant to call himself resident officer. We have quoted the language of the handbills, and it is difficult to exonerate Mr. Harding from responsibility for them. But, even if he never saw them, it is strange and not creditable to see a practitioner in Guildford-street—by the way, a Fellow of the College of Surgeons—co-operating with a "Philadelphia" doctor in establishing a Provident Dispensary in the Caledonian-road to attend the "inhabitants" (*sic*) on terms that do not consist with the supply of even good medicines, to say nothing of skill and advice.

THE BRITISH ASSOCIATION AND THE PHARMACEUTICAL CONFERENCE.

THE forty-third annual meeting of the British Association was commenced at Bradford on Wednesday last, under most favourable auspices, and gives promise of being an unalloyed success. The proceedings were inaugurated by an able address from Professor Williamson, to which we shall refer at some length next week. Dr. Carpenter, the retiring President, in introducing his successor to the meeting, expressed his deep regret at the illness which prevented Dr. Joule occupying the distinguished post he then relinquished. A cordial vote of thanks was, on the motion of Professor Henry Smith, passed to Dr. Carpenter. The report of the Council for the year was presented by Captain Douglas Galton, and, on the motion of Sir Rutherford Alcock, adopted.

The British Pharmaceutical Association, which usually meets at the same time and place as the larger and more important Association, commenced its tenth annual Conference under the presidency of Mr. H. B. Brady, of Newcastle-on-Tyne. Numerous papers of interest were read, and delegates from the various large towns assisted in the proceedings. The Report of the Executive Committee stated that they had a balance of about £80, from which they were prepared to make grants in aid of any original research in connexion with pharmaceutical science. In

consequence of the unsettled condition of pharmacy in Ireland, it was decided not to hold the Conference in Belfast next year, and a unanimous opinion was expressed that the meeting in 1874 should be held in London. Among the papers read we may mention those of Professor Attfield, Mr. J. J. Nicholson, Mr. Hampson, Mr. S. R. Atkins, Mr. Alfred Payne, Mr. Keyworth, Mr. Siebold, and Mr. Savage.

THE SALE OF OPIUM IN DEADLY QUANTITIES.

IT is high time that the sale of opium and its preparations was surrounded with more precautions than at present. A woman has just died in Leicester from opium. She bought it at a chemist's shop. The chemist gave her half a drachm for two pence, on stating that she wanted it for a woman who was in the habit of taking it. On receiving information that she had taken it, he went to the woman's house, found her delirious, and administered two emetics, with no result. Then, after the lapse of two hours, he went for a doctor, and not succeeding in making him hear, he went home for the night. Next morning he went to see her, and, finding her unconscious, brought Dr. Abbott. Dr. Abbott said at the inquest he thought that if medical assistance had been procured on the previous night life would have been saved. The druggist said it was not an uncommon thing to supply opium in this way. "He was in the habit daily of supplying, after questioning the customer, as much as a drachm at a time"! The jury found a verdict of "Temporary insanity," and expressed a mild censure on the chemist, for not getting medical assistance on the previous night. Such a case, coupled with the admissions of the chemist, and the ordinary experience of practitioners, makes it pretty certain that chemists far too easily sell opium, and that there is an extensive demand for the article, especially in the manufacturing districts. We shall not comment at length on the conduct of the chemist in visiting this patient at home, and taking medical charge of it even after urgent symptoms had made their appearance.

HORSE-RACING AND ITS RISKS.

THE sporting world is very much shocked at the death of Tom French, who seems to have been a victim to his love of horse-racing. We shall believe in the shock of the sporting world a little more if it takes the practical form suggested by our contemporary the *Sporting Life*, of altering the rules which require jockeys to reduce their weight to an extent almost certain to induce disease. In the last ten or twelve years the mortality amongst eminent jockeys has been significantly large, and if it continues we shall hope to see a charge of "constructive manslaughter" brought by a coroner's jury against the Jockey Club. Their rules require an amount of wasting which very few constitutions can stand with impunity. Poor French had a very brilliant though short career. In a letter addressed to the *Sporting Life* by Dr. Mead, of Newmarket, all the particulars of French's ordinary health and various illnesses are given. We shall not comment on the taste of giving minute pathological descriptions to a non-medical paper; but merely remark that Dr. Mead's account of French is enough to show that he never had the constitution to stand jockeying, even if the rules were more reasonable than they are. His chest was narrow, and his lungs showed signs of delicacy when he was fourteen years old. In February, 1870, he had hæmoptysis, and was advised to relinquish his profession. But the ruling passion was too strong, and that very year he won the Derby, as he did again in 1871. With the consciousness of aptitude for such feats we may forgive him for disregarding his weak chest, and going in for fame. We are told that this season he rode in 118 races. No wonder that in August, two days after his last mount, a winning one, he again had hæmoptysis, or that he died in a few days with dyspnœa, sometimes frightful, and all the indications of extensive tubercular deposit. Doubtless the absurd reduction of weight involved in training for a race, and the great strain of the race itself, would be enough to explain the death of stronger men. Lungs, arteries, and heart must suffer by such work. The very passion of such true racers as French should be an argument with the Jockey Club. It should dispose them to reduce to a minimum the risk of training, and to make their demands more consistent with the life and health of those without whom the turf would lose all its interest.

FLOATING HOSPITALS.

THESE establishments are receiving a renewed lease of attention. The sanitary authorities of Dublin are at present undecided whether to establish a floating hospital at the mouth of the Liffey, or to build one on shore, for urban as well as port sanitary purposes. It appears to us that, when such an establishment is required only for occasional occupation by the sick, a floating hospital has several decided advantages. Isolation may easily be rendered complete, open air treatment may be resorted to if considered advisable, and a hospital afloat can, when occupied or empty, be very economically maintained. We take it, however, that isolation is the main advantage attained, and the benefits derived on this head were most emphatically shown during the last epidemic of small-pox in London, when the Metropolitan Asylums Board obtained the loan of the *Dreadnought* from the Admiralty, drafted their patients into the ship from Hampstead, Homerton, and Stockwell, and kept them there during the stage of desquamation. But for ordinary purposes, as on the Liffey and at the outports, large vessels are not required. In THE LANCET of the 6th January, 1872, a diagram and clear description are given of a small floating hospital established at Shields under the auspices of the Tyne Ports authorities. It contains only sixteen beds, is quite large enough for the purpose, and is well worthy a visit from all interested in port sanitary matters. Old Government vessels are not, as a rule, good receptacles for the sick, at all events if used for this purpose permanently. They are often, so to speak, "spongy," often unwieldy, with corners, holes, and angles of all descriptions, admirably calculated to house and retain objectionable peculiarities, and they often require repair. A vessel built on the principle of that at Shields could be moored in any sheltered situation, and, if necessary, the height of freeboard could be easily increased.

MEDICAL CONGRESS AT VIENNA.

ONE of the main features of the Vienna Exhibition was to be the holding of a medical congress; but, owing to the fatality which seems from the first to have hung over that laudable enterprise, the congress, though it *has* come off, cannot be considered a success. Its sittings commenced on the 1st inst., and the usual formal preliminaries were not concluded till the 3rd. When the regular business began not more than from 60 to 70 out of the entire 300 members attended the daily meetings. Cholera, as the evil *genius loci*, was the appropriate subject of the first discussion, and physicians from all parts of the world, including Java, Egypt, and Brazil, engaged in it. The Java physician advanced a very elaborate argument to prove that the disease is not necessarily epidemic; but in the whole section he had but three supporters. Quarantine, as a cognate subject, next came on for debate, but no practical result was reached,

Some countries, it was shown, have extreme difficulty in enforcing it. Austria, for instance, could make it effective only on the Danube and the Adriatic. Her extended frontier, penetrated at every point by railroads, presents almost insuperable obstacles to legislation on the question. The topic of an International Pharmacopœia occasioned much animated and sometimes able argument. It was admitted that an English physician, unless acquainted with the German Pharmacopœia, would be unable to write a prescription which an Austrian professional brother could understand. A new system was proposed, of which, it was suggested, the Latin should be the uniform language; while the adoption of a metrical scale of weights was further recommended. The subject was too vast, however, for a final conclusion, and its discussion was postponed till the next congress, which will, in all probability, be held in London.

RAILWAY ACCIDENTS.

WHILE the science of "preventive medicine" seems to be taking a firm and salutary hold of the medical profession and the public at large, there is a strong counterbalancing effect produced by the science of "procurative surgery," which seems to be so much encouraged by railway companies. From the returns recently issued we learn that during the year 1872, 1145 persons were killed and 3038 were injured upon railways. Of those killed, 127 were railway passengers, and 632 railway officials. The rest are returned as "trespassers, suicides, and miscellaneous," a large and doubtful class, numbering 386. An interesting paper "On the Influence of Occupation upon Health," which was published last year by Mr. Francis G. P. Neison, gives us some particulars as to the mortality of persons engaged in occupations in connexion with railways. Taking the forty years between twenty-five and sixty-five, which constitute the prime of life, we find from Mr. Neison's tables that the mean annual mortality per cent. among 67,482 railway *employés* of all grades was 1·79. The lowest mortality was, among the railway officers, clerks and station-masters, 1·66 per cent.; the highest, among the engine-drivers and stokers, 2·06 per cent. In making deductions from these tables, Mr. Neison says, "the mortality of those engaged on railways is, notwithstanding the peculiar risk to which many of the occupations are exposed, less than would probably have been expected; as, if the sum total of all is taken, the mortality, it will be perceived, is but slightly in excess of that for the kingdom generally." Further, he concludes, "that the only injurious influence of those engaged on railways is to be attributed to the risk arising from accidents."

ADULTERATED MILK.

IT is with genuine satisfaction that we chronicle the fact that a dairyman, in default of paying a fine of £10, was last week sentenced to two months' imprisonment by the presiding magistrate at Wandsworth, on his conviction, for the second time, of selling milk adulterated with twenty per cent. of water. Should the necessity arise, we should be glad to hear that this dairyman's imprisonment was to be shared by many of his brethren in the trade. The dairyman's defence was, "that persons who paid fourpence a quart knew that the milk was adulterated a little with water. He sold pure milk at fivepence." The knowledge expected by tradesmen of their customers is singularly wide in its range. It was only the other day that a coal dealer who was convicted of selling a mixture of slate and slag as "best Wallsend," made the defence that persons had no right to expect to get Wallsend coals for 27*s.*! We are glad to find that magistrates do not seem inclined to accept this form of defence for dishonesty. The prevention of the adulteration of milk is doubtless a difficult matter, for we presume that the maxim of not muzzling the ox that treads out the corn holds good in dairy-farms, and it must be all but impossible, especially during the summer months, to prevent thirsty *employés* from making good their deficiencies of milk at the first water-source, contaminated or not, that comes handy. These wholesome decisions of our metropolitan magistrates will doubtless have the effect of sharpening the vision of those whose duty it is to overlook the arcana of the dairy.

MERCURY IN THE HUMAN BODY.

A PARAGRAPH lately appeared in an evening contemporary to the effect that an illustration of the accumulation of mercury in the human system was furnished recently at a lecture in Vienna, by the exhibition of the leg-bone of a man whose death had been accelerated by the use of the metal. Professor Hatt struck the bone heavily upon his lecture-table, and thousands of glittering little globules of quicksilver were forced out, and rolled into larger drops on the black surface before him. All this had been absorbed into the man's system during life.

Is this possible in these days? Do our Austrian *confrères* prescribe mercury so freely as to accelerate death? We confess to a little scepticism about the reduction of mercury to the metallic form in the body from any of its preparations. Perhaps it was administered in the liquid form, a plan that was sometimes adopted in old times as a means for the reduction of strangulated hernia. If not, the only preparation which could supply the metal itself is the ointment of mercury, in which the particles of mercury may be seen with the microscope; but the quantity used to produce the effect described must have been enormous.

THE DISASTER ON THE PRAH RIVER.

THE attack on the officers and men of the *Rattlesnake*, proceeding up the Prah, was a work of foul treachery that was quite unexpected. The sympathies of the tribes on the seacoast are with the Ashantees; but those tribes living more inland in our Protectorate have suffered too much from the plundering propensities of the Ashantees not to welcome any power likely to liberate them from the tyrannical oppression of their enemies. Commodore Commerell is a V.C. and a very distinguished officer; and we deeply regret to learn, from an officer recently arrived from the Gold Coast, that his wound is considered to be of a dangerous character, as it is feared the liver may have been implicated in it. The commodore is on his way to the Cape of Good Hope. He has received every possible aid that surgical skill could suggest. In addition to the solicitous attention of the surgeon of his vessel, a consultation was held with the principal military medical officer, Dr. Home, V.C., whose experience of gunshot injuries is great.

HOP-PICKERS.

THE hop-pickers are now in full force about the grounds of Kent and Surrey, and have during the last two or three weeks been gathered into those districts from the East-end of London by river, road, and rail. In spite of the correspondence sent to us some weeks ago as to the supervision exercised over the pickers by their employers, we still maintain that some surveillance, capable of regular and systematic application, is necessary. We know that the large growers need hygienic precautions the least, for they have already, in their own interests and in those of humanity, provided fairly for the accommodation of their *employés* during the temporary sojourn of the latter among

them. But fresh air, out-door work, and a moderate temperature will not neutralise the bad effects produced by scanty and dirty clothing, crowding at night, and an utter obliviousness of any sort of caution in the matter of food and water used for drinking purposes. We can conceive no circumstances so favourable for the development of the typhoid and cholera poisons as those under which the hop-pickers exist. Hence, as was indicated a few weeks since, the medical officer of health must, in a matter of this sort, and in a large combination of districts, have the assistance of the union medical officers, whose geographical knowledge would be invaluable.

REDUCTION OF THE ARMY MEDICAL SERVICE.

WE learn from a military contemporary that some reduction in the *personnel* of the department is at present under consideration, and that Mr. Cardwell is intent on abolishing about thirty-five places in the surgeons' list. It is stated that it is the intention of the authorities in future to utilise the civil profession to a greater extent than heretofore for taking medical charge of small detachments in outlying districts, as a substitute for the services of medical officers. It is believed that a public saving will be effected in this way.

POOR-LAW GUARDIANS AND UNION SURGEONS.

IT is generally admitted that parish surgeons are hard-worked and badly paid. It was therefore wisely ordained by the Legislature that boards of guardians should have discretionary power to grant an annuity after long service. How well this power has been lately exercised in Derbyshire the following case will show. Dr. Cantrell had held a district in each of the unions of Belper, Ashbourne, and Bakewell for more than thirty years, and, on retiring the other day in consequence of age and defective sight, applied for the usual annuity. The resolution that such annuity should be granted was negatived in each union on the ground that it would establish a dangerous precedent. If guardians are to exercise their authority in this way, it is high time to remove it from such cheese-paring economists. Such a precedent would only have been honourable to themselves and satisfactory to all high-minded ratepayers.

DEATH BY DROWNING.

THE accident season has been more than usually prolific in casualties—those by drowning being abnormally numerous. Many of them are clearly traceable to the practice of taking "headers," by which the spine is liable to sustain a twist, as happened to young Mr. Manuel Dasent last year at Sandford Lasher. Unless, moreover, the plunge be artistically taken, the shock is apt to prove too great for the feeble heart or languid circulation. Swimming-schools, we are glad to see, are increasing the number of those who can bathe with safety to themselves, and be instrumental in saving others; but why should not the latter wear the collar devised by the Humane Society for all who cannot swim? The article, which is agreeably light, can sustain a heavy man in the water, and keep his head quite above it till he recovers his self-possession and his feet, or till aid arrives.

HOSPITAL SHIP FOR THE GOLD COAST.

WE understand that it is the intention of the Government to equip a large vessel as a hospital ship for the reception of the sick and wounded during the expedition against the Ashantees. It is probable that it will be very much after the pattern of the hospital ships stationed in the Red Sea during the Abyssinian war. It is to be hoped, however, that arrangements will be made for the speedy removal of the sick from a climate like that of the West Coast of Africa, either by naval vessels set apart for the purpose, or by the regular line of steamers employed in the African trade. We notice that it has been proposed to send the invalids to Ascension, but we think it would be a preferable course to convey them home at once. There is generally a heavy swell off Cape Coast Castle, rendering the embarkation of invalids difficult and their position on shipboard uncomfortable; but we are told that at a distance of three or four miles from the coast the motion of the sea is much less and the position much healthier than one nearer land.

CREMATION.

WE hear that a club has been formed at Hamburgh for promoting the heathen practice of incineration, in place of Christian orthodox inhumation. The club it is said already numbers upwards of eighty members, each of whom on entering has made a will, according to which his remains are to be burned. The only difficulty about this proceeding is the cost of the fuel. The wood and coal required for the satisfactory destruction of a human body would certainly be considerable, and the present scarcely seems a favourable time for reviving this ancient and, in a sanitary point of view, commendable practice.

MR. FAIRWEATHER, Sanitary Commissioner of the Punjab, in his last report states that there is a decided improvement in the public health, both in large towns and in rural districts. Small-pox and fever are rapidly subsiding, while the small number of deaths from cholera gives reason to hope that the disease has now spent its force.

DR. LETHEBY reports that during the recess 1399 houses had been inspected in the city, 94 of which required sanitary improvement. The markets and slaughterhouses were also visited, and 20,053 lb. of meat condemned. The health of the City proper is now very good.

AN inquest was held a few days ago before Dr. Lankester on the body of a boy, aged six years, whose brain, according to the medical evidence, although healthy, weighed no less than fifty-three ounces. The cause of death was pulmonic apoplexy.

IT appears that England is the only country in the world which has not sent home-grown tobacco to the Vienna Exhibition. The best tobacco, as might have been expected, came from Havannah, while the worst came from Holland.

THE name of Mr. Francis Robert Trumper, M.R.C.S., Brook House, Hay, has been added to the Commission of the Peace for the county of Brecknock. Mr. Trumper has been for some years a magistrate for Radnorshire.

ON the 8th inst. Professor Hughes Bennett, of Edinburgh, was elected Corresponding Member of the National Academy of Medicine of France. He received twenty-eight votes, and Professor Van Beneden eight.

PROFESSOR CZERMAK, the celebrated physiologist, whose work on the Laryngoscope was translated by the Sydenham Society, died on Monday last, at Leipsig.

WE understand that a movement has been initiated in London having for its object the promotion of a memorial to Von Graefe.

THE prize of 2000 rupees offered in October, 1871, by the Government of India for the compilation of the best Manual of Family Medicine for India has been awarded to Surgeon-Major Moore, of the Rajpootana Political Agency.

A SUM of £10,000 is to be expended in making improvements, hygienic and otherwise, in the North Surrey District Schools at Anerley. This step will, we hope, result in the eradication of ophthalmia, so long prevalent among the children.

THE Town Council of Portsmouth have resolved to memorialise the Government against the erection of the Hospital for Contagious Diseases which has been commenced close to Portsea.

A COMMITTEE of the Leeds Town Council appointed to examine into the cultivation of grass from sewage products have reported strongly in favour of native guano as a manure.

ENTERIC FEVER has broken out in several parts of Birmingham. Another visit to the town by a Local Government Board inspector will probably be necessary.

A MUNIFICENT gift, in the form of the rentage of a coalfield, has just been made by Archdeacon Hill to the Chesterfield and North Derbyshire Hospital and Dispensary.

YELLOW FEVER is causing great mortality in the State of Louisiana. In some of the towns the deaths amount to twenty a day.

WE are glad to be able to state that the outbreak of enteric fever at Brighouse, Yorkshire, has been completely arrested.

THE Brighton Free Library was opened last week with an inaugural address by Dr. Carpenter, F.R.S.

THE ASHANTEE WAR.

IT is melancholy to read of the loss of life, and of such valuable life too, as that attending this miserable war with the Ashantees. Nothing could have surpassed the pluck and daring of officers and men under the circumstances of the late treacherous attack on Commodore Commerell's reconnoitring party up the Prah. Meanwhile great activity prevails at home. The materials for huts are being shipped, together with stores of all kinds and ammunition for the campaign which, of some kind or another, it is perfectly clear must now be undertaken if we are to retain our position on the Gold Coast. Huts will undoubtedly prove very superior to tents in a climate at a latitude of nine degrees from the equator. The heat at midday is said to be very great, and it is doubtful whether single tents or the *tente d'abri*, which forms such a portable and convenient method of shelter, would be found to afford sufficient protection against it. From intelligence furnished us from Cape Coast, we learn that the barrack and hospital accommodation, both at that station and Elmina, is utterly inadequate, and the medical officers have recommended the encampment of troops on available sites in the vicinity of these places in preference to the occupation of buildings that are quite unsuitable for the purpose. Of the 110 marine artillerymen who left Portsmouth some three months ago, all but twenty have been invalided, and several of those left behind are now more or less sickly. Much disease has prevailed among the men of the West India Regiment since its arrival, and about one-third of the European officers have been attacked with fever or dysentery, and one of their number died of remittent fever after four days' illness. Still, it must be remembered, as in the case of the marines, they were landed, owing to the exigencies of the service on which they were engaged, at the most unhealthy season, through which they have now nearly passed. Our correspondent states that the health of the West India Contingent had shown some signs of improvement of late. Owing to the smallness of the garrison, the military duties were somewhat severe, and the diet of the troops had been increased in amount, at the instigation of the medical service. An expedition was contemplated against the Ashantees with the Houssas, West Indian and native forces at command, supplemented by volunteers, and every arrangement had been made for its execution. Unfortunately, however, this disastrous affair on the Prah river has occurred, and it has probably put an end to the undertaking almost as soon as it had begun. It had been arranged between the military and naval authorities that the forts should be garrisoned by men from the fleet, so as to set the soldiers at liberty to take the field. Our correspondent says that the doctors are very busy, and that the senior medical officer has his hands full in devising sanitary precautions.

Our readers may doubtless remember that we recently published the results of an extensive series of trials in India of various preparations from bark, besides quinine, and that these results were of the most encouraging and satisfactory kind. We understand that a trial is to be made of the effects of sulphate of quinidine as a prophylactic against fever.

It may be interesting to afford our readers some information in regard to the geography of the Gold Coast in the neighbourhood of Cape Coast Castle. A very clear map has just been published by Mr. James Wild, which we would recommend our readers interested in the subject to obtain. The Prah river is variously estimated at from eighty to 100 miles from Cape Coast; and it is about the same distance from the Prah to Coomassie. Mansu is between thirty and forty miles from Cape Coast; twenty miles further on is Faysoo, and thirty or forty miles beyond this is the Prah, which is the boundary of the Ashantee and the Protectorate. The size of the river depends on the time of year, for it is, of course, enormously swollen during the rainy season, and the ground in its vicinity a swamp. Then comes a big hill—the Monsi hill—of about 1600 feet elevation, and afterwards Coomassie. Coomassie itself is said to be healthy, and it would be still more so, probably, but for the presence of a huge place in its central part into which, we are told, the Ashantees cast the heads of their enemies decapitated in battle or slain during some of their plundering raids. Of course, it is yet quite uncertain whether Sir Garnet Wolseley will make any expedition to the interior at all, and, if he does, what will be the route that he will take.

Correspondence.

"Audi alteram partem."

THE MEDICAL AND SURGICAL HISTORY OF THE AMERICAN WAR.

To the Editor of THE LANCET.

SIR,—Absence on the Continent prevented me from seeing THE LANCET of August 30th until to-day. In your notice of the "Medical and Surgical History of the War of the Rebellion" in that number, p. 303, you have referred to the criticism by Dr. Otis on some remarks of mine on the classification of gunshot injuries adopted in the United States' armies during the war. I do not write now for the purpose of entering upon an explanation or defence of my remarks, but simply to say that you are quite right in supposing that I am not one who would wittingly give umbrage to the members of the United States' army medical service, for which I, in common with all who know what they did during the war, have the highest respect; and, further, to assure you that, as far as I am aware, I have not written

anything which ought to have caused offence. As to the official forms of classification used during the United States' war, which were what I discussed, anyone who will refer to my comments upon them in Vol. 54 of the Medico-Chirurgical Transactions, and who will then examine the Surgical volume of the "History of the War of the Rebellion," will not fail to observe that most of my observations are borne out by the alterations made by Dr. Otis himself in these very forms of classification, he having adopted an arrangement in his tables very similar to that which I advocated for the primary returns from the field hospitals. I am hoping that a reply to the remarks of Dr. Otis will shortly appear in the *American Journal of Medical Sciences*. A copy of the "Surgical History of the War of the Rebellion" was kindly sent me by Surgeon-General Barnes, chief of the U.S. Army Medical Department, in June last. On the same day that I received it, observing the criticism in question, I wrote to Dr. Barnes on the subject. Not receiving a reply, I then wrote some remarks for publication, which I hope may appear in the forthcoming number of the above-named journal. I felt that this course was due to my *confrères* in the United States after the observations of Dr. Otis, to which you have called attention.

I remain, Sir, yours obediently,
THOMAS LONGMORE, Surgeon-General.

Woolstone, near Netley, Sept. 15th, 1873.

ANTISEPTIC SURGERY.

To the Editor of THE LANCET.

SIR,—As one of the many strangers referred to by Mr. Lister in his letter of the 30th ult.* as having witnessed his practice since Mr. Wood's address was delivered before the British Medical Association, permit me to enter a protest against the sweeping assertion and insinuation contained in his concluding sentence.

In preface, let me remark that for nine months previous to my visit to Mr. Lister's wards I had adopted antiseptic surgery in my own practice at Oldham Infirmary. Notwithstanding that I had omitted no one of those precautions said by Mr. Lister to be necessary to success, and that I had personally, at no small sacrifice of time and convenience, conducted every dressing with the utmost care, I had failed to obtain results in any way better than those I had been accustomed to see in dressing by other methods. It was, therefore, with no small interest that I visited Mr. Lister's wards about a fortnight since, anxious to see if I had failed in any detail, and to discover why his results were so much better than my own.

To my disappointment and mortification, I not only found no precaution used that I had not invariably used myself, but I saw cases looking very much like what I had been accustomed to see in other hospitals, and certainly no better than cases I had just seen in adjoining wards in the same hospital. I found that, at least in two of the cases I saw, inflammation and suppuration had occurred after the application of the dressing, and that these were explained away; in one case by the access of germs, and in the other by the premature removal of a drainage tube! The bare possibility of any failure of the antiseptic system was not for a moment entertained by Mr. Lister in his remarks, and we were asked to believe that in these cases putrefaction had been absent, and to observe what an advantage it was to render putrefaction, as he did, an impossibility. At first my feeling had been simply that of disappointment, but after hearing Mr. Lister dogmatically give utterance to the same old theories we have all seen in his writings of two years since and more, oracularly regardless of all that scientific research has elucidated since then, I left his wards, as any man who conscientiously desired to find out and uphold the truth must have done in my place, with the last remnant of my belief in Professor Lister dissipated to the winds.

It is to such men as Mr. Wood that the profession must look for trustworthy evidence on such a subject as this. Mr. Wood, it is true, may find that the cares of practice effectually prevent him from spending, as Prof. Lister does, several hours a day in his wards, but no one will suspect him of speaking as he has done without having taken every practicable precaution in carrying out the system he has been testing. Those of your readers who still retain a lingering belief in the efficacy of antiseptic surgery cannot do better than go to Edinburgh and see for themselves; and I am confident that I will not then be the only one of "the many strangers" (as indeed I know I am not now) who had no hesitation in arriving at an explanation—but a very different explanation from that insinuated by Mr. Lister.

I am, Sir, yours, &c.,
Oldham, September 8th, 1873. GEORGE THOMSON, M.D.

* THE LANCET, September 6th.

SMALL-POX IN GLASGOW.

To the Editor of THE LANCET.

SIR,—I observe a "newspaper cutting" in THE LANCET of September 6th, which you kindly introduce with the hope that it "contains a greatly exaggerated report of the death-rate from small-pox in Glasgow." I am happy to assure you that it does.

In the first place, the figures given as "rates per 1000" are actual numbers, and the paragraph should therefore read thus:—"An alarming statement was made at a meeting of the Govan Parochial Board held in Glasgow on Thursday regarding the death-rate. In the Partick district of that parish, for the year ending June, 1873, the deaths from small-pox were ninety-seven, while the average in the other four districts instanced for comparison was under eight."

In the next place, Partick, although a part of the parish of Govan, is not within the municipal boundary of Glasgow, but is an independent burgh. The meaning of this action of the Govan Parochial Board is simply this: that while the four districts referred to for comparison yielded an average of eight deaths each from small-pox in the specified year, their population being 190,380, the district of Partick yielded ninety-seven deaths, its population being only 23,918; and the board appeals to the Board of Supervision to institute an inquiry, alleging that the Police Commissioners of Partick have been remiss in the discharge of their duty as local authority.

In Glasgow, since December, 1870, when small-pox first appeared, we have fought a hard but hitherto a successful battle. Out of a population of above half a million, the highest number of deaths registered in any one quarter has been 66. In the year 1872 we had only 137. We have unlimited hospital accommodation, a vaccinating station, which yields an abundant supply of lymph, which is taken to the infected localities, and a constant system of house-to-house visitation in those localities. We resort to compulsory removal whenever it is necessary, and insist upon disinfection and washing of clothing being done at our own establishment, not in common washing houses. I have no doubt that these special measures, along with the general operations of the sanitary staff, account sufficiently for the striking contrast between the prevalence of small-pox in many suburban districts, such as Partick, and the comparative immunity of this large urban population.

I am, Sir, your obedient servant,
JAMES B. RUSSELL, M.D.,
Glasgow, 8th Sept., 1873. Medical Officer.

ON THE PREVENTIVE TREATMENT OF URIC-ACID CALCULI.

To the Editor of THE LANCET.

SIR,—In a paper on the above subject read by Dr. Harley during the recent meeting of the British Medical Association in London, the following passages occur:—"The common idea was that the action of the alkalies in the uric-acid diathesis was solely and purely a chemical one. There no doubt existed a chemical action, and that a most important one; but beyond this there was an important physiological action produced in the body, through which the oxidation process was so much increased as to transform the little soluble uric acid into the very soluble urea. *To Dr. Basham was owed the establishment of this as a clinical fact.*"

I take leave to inform Dr. Harley that, in ascribing this explanation to Dr. Basham, I believe him to be in error, as

prior to the publication of my pamphlet "On Therapeutics and Disease," the former of the processes above referred to by Dr. Harley was accepted as the *modus medendi* of alkalies in the treatment of the various forms of the uric-acid diathesis. If I am in error I shall feel obliged by being corrected.

Dr. Basham's paper on this subject—the one to which I presume Dr. Harley refers—was published in the November number of the *Practitioner* for 1872. My pamphlet was published in May of the same year, and a review of it exists in the *Practitioner* of October, 1872, Dr. Basham's paper appearing just a month afterwards. Moreover, my pamphlet was written as a graduation thesis some eight or nine years previously, and would in all probability not have been published but for the wants of a local journal. In the December number of the *Practitioner* will also be found a short note from me to the above effect.

If Dr. Harley thought the matter at all worth referring to, a self-evident excuse for this note exists.

I am, Sir, faithfully yours,

Glasgow, Sept. 5th, 1873. D. CAMPBELL BLACK.

DEFERRED FRACTURE OF THE CLAVICLE.

To the Editor of THE LANCET.

SIR,—The following case, which occurred in my practice some time since, seemed to me to be an unusual one on account of the actual occurrence of fracture being deferred to the day following the injury from which it resulted, and I therefore venture to ask a small space if you should think it sufficiently interesting for insertion.

William D——, aged fifty-three, a farm labourer, a fine, well-built man, was engaged in mowing weeds, but coming near the loose bough of a tree he pulled it down, and in its fall it struck him on the head and shoulder, knocked him down, and rendered him insensible. On recovering consciousness he found that there was some pain about the left shoulder, but he was able to take his scythe, and, keeping his elbow close to his side, continued mowing weeds for the remaining two or three hours of the day.

On rising in the morning he was turning his feet to the right with the intention of getting out of bed, when an audible crack occurred, causing his wife, who was standing near, to ask what it was.

Finding that he had suddenly lost the power of moving the arm which he had the night before, he sent for me, and I found fracture at the juncture of the middle and outer third of the left clavicle.

From very careful cross-examination I convinced myself that no solution of continuity had occurred previously to the time of turning in bed, although there is no doubt that the bone was injured by the tree falling on the shoulder.

The case presented nothing remarkable afterwards, and the man made a good recovery.

I am, Sir, your obedient servant,

ALFRED E. BARRETT.

Grimston, Lynn, Norfolk, Sept. 16th, 1873.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—I think the Department have received with satisfaction the principle of unification. Certainly the majority have done so, and it only remains for the minority loyally to accept the decision, and join in developing a departmental *esprit du corps*. So long as we were with our regiments many of us lived for them, and turned all our sympathies towards them. To-day we find the system altered, and I feel certain that the men who worked hardest for their battalions will now work equally well for the Department. There are a certain set, of course, in every body of men who never take any interest in anything but their own comfort.

I desire to bring to the attention of the Department a few points which I think we might urge upon the authorities.

1. The Department, now one, should be made "Royal." It is our just due. No corps, department, or body of government servants, have done better work for England than we have. It only needs to read the war services in Hart's Army List to see in how many arduous situations we have worked devotedly and well. Many of us, too, have been taken out of "Royal" regiments, and "King's" and "Queen's Own." Now all these little things are of moment in the service, and we deserve the honour. We find Royal Engineers, Royal Artillery, Royal Marines, and dozens of Royal regiments; why not Royal doctors as well? We have done quite as good, indeed infinitely better service than any of the above, and we deserve the title. Will you assist us in getting it?

2. The name of the principal medical officer of each *division* of the army at home, and each colony abroad, should be entered under the proper heading in the Army List. Everyone who knows the Army List knows this is an omission. Take Aldershot for example. We have all the heads of departments entered under the heading of Aldershot in the divisional list except the medical. Quite lately the Control officer was entered, and we also should find a place. Our cry should be, "Equal treatment"—no more, but certainly no less. In the Indian official Army List the principal medical officer of each division or district is always entered under the head of the garrison staff.

In fact, it only needs a word from the medical heads at home to have it done. It is simply justice, and, working from that centre, we are invincible.

I am, Sir, yours &c.,

Bengal, India, August, 1873. I. V. R. C.

THE PRIMARY EXAMINATION OF THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—The inquiries of Mr. Gay into the preliminary examination R.C.S. lead us to hope that they will be followed by an investigation into the primary examination; and that reforms, long and urgently needed, may be effected therein.

I trust that the following remarks representing the views of a class most nearly concerned in the matter may not be devoid of interest. These views may be thus briefly stated:—I. The examination is very inefficient. II. It may easily be made perfectly efficient.

I. The inefficiency of the examination depends on three conditions:—1. It is too easy. 2. It is variable. 3. It has no nice discriminating power. To illustrate and prove these statements I may say that the candidates for this examination (I speak particularly of the membership) are of three classes. First: there are men of average ability who have worked hard and honestly through their two winter sessions. All these are certain to pass. Even men decidedly below the average in ability can pass if they work. Second: the great bulk of the candidates are men who have wasted a great deal of time, especially in their first winter; and whose knowledge is near the minimum required by the College, some being above that standard, some below. It is among this class that the want of discriminating power is most felt; the better men frequently being plucked, while those whom they know to be inferior to themselves often get through. Third: there is a set of men who are of good ability yet incorrigibly lazy, who will not work until a couple of months before the examination, and who, consequently, go up in a state of disgraceful ignorance. I have known men on the day of examination unable to mention the branches of the external carotid; unable to name the muscles attached to the hyoid bone and to the scapula when pointed out to them; unable to distinguish the hypoglossal nerve from the gustatory. Yet these men, knowing by heart a number of stock questions, manage to answer their papers; and by real self-possession veiled under an assumed diffidence, by a skilful method of dawdling, and in the hands of a lenient examiner, contrive to get through their *viva voce*. Is it to be wondered at that the examination is looked on as a lottery, in which scholarship is indeed of some use, but the great thing is "luck"?

II. The remedy for this state of things is so easy, so obvious, that it appears to me only necessary to point out the evil in order to have it removed. Let the written examination be conducted by two papers, morning and afternoon, one in anatomy, the other in physiology. Let the

questions set be less those to be answered from books, more those for which actual dissection and practice are necessary. Let the anatomy and physiology be similarly separated in the *viva voce*, so that the examination in the latter may be more thorough. Finally, and this I would most strongly urge, let the candidates who have passed be arranged in three classes, according to merit.

Such an arrangement would, I believe, be of the utmost benefit to all. No longer would herds of men be let loose into the wards almost as ignorant of the foundation of their profession as the patients whom they have to treat. No longer would steady industrious men be humiliated by being placed on an equality with mere crammers; and no longer would the kindhearted and lenient examiners be looked on as malevolent beings whose power to do evil is thought to be only exceeded by their will.

I am, Sir, yours, &c.,

Sept. 1873. A MEDICAL STUDENT.

THE NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Thanks many and sincere are due to you and Sir D. Corrigan for the manly and independent manner in which you both have taken up the cause of unfortunate naval surgeons. I cannot tell you, Sir, with what delight I read Sir D. Corrigan's able and truthful letter, published in your issue of the 9th August. I happen to be one of the surgeons mentioned by the eminent baronet, and I can vouch for the perfect truth and reliability of every word contained in the above-mentioned communication. Is it not hard, Sir, that we alone of all classes in the community are compelled to lead a life of slavery—for I can call it nothing else—simply to please the whims and fancies of their lordships? Are we, Sir, might I ask, to be deprived of our liberty, and by the exercise of an unjust, and, I believe, illegal compulsion, constrained to remain in a service which is distasteful and repugnant to our feelings? I, for my own part, am beginning to lose all interest, not only in my profession, but also in life. My resignation has been over and over again refused; I have besought, nay prayed, the Lords of the Admiralty to allow me to resign, as my life was simply unbearable owing to sea-sickness; this apparently just request their lordships have several times peremptorily refused, and as often have taken no notice of my remonstrances. I have, as Sir D. Corrigan states, been sent on foreign service, with the pleasant alternative of a court-martial hanging over my head if I refused to instantly comply with their lordships' instructions. I may say, in concluding this letter, that when I signed the declaration referred to by Sir D. Corrigan, I had not the least idea that it bound me to serve for any stated time; I considered myself a perfectly free agent, and, as such, at liberty to leave the service when I pleased, provided I was not serving on a foreign station at the time of sending in my resignation. This was a right I knew was never denied to an army surgeon, and I naturally thought that an office in the navy of the same standing possessed the same privileges. Thanking you for the space which this letter has occupied in your valuable journal,

I am, Sir, truly yours,

September 16th, 1873. JUSTITIA.

LARGE DOSES OF DIGITALIS IN DELIRIUM TREMENS.

To the Editor of THE LANCET.

SIR,—I can bear testimony to the fact that digitalis may be given in large doses in delirium tremens without producing the disastrous effects which one would have thought must follow such heroic treatment. I must add that the drug thus administered has disappointed me in its effects. Following the plan recommended by the late Mr. Jones, of Jersey, I have prescribed it in half-ounce doses, and have repeated that quantity every two hours, so that in six hours the patient had taken one ounce and a half of the tincture of digitalis without producing any deleterious effect, and, I must add, without producing any satisfactory one.

I am, Sir, your obedient servant,

King's Langley, Sept. 1873. CHARLES WOTTON.

AUTUMN MANŒUVRES AT CANNOCK CHASE.

(From our own Correspondent.)

Now that the Manœuvres require only the popular performance of the "march past" to bring them to a close, it must be hoped that while military instruction was being given and received the opportunity for hygienic lessons was not wasted. The remarks previously made on the soldier's dress have been fortunate enough to re-enlist the efforts of those who have devoted themselves to the study of the subject in former years, and by reason of combined importunity possibly something may be accomplished. Within the last two days a new system of attack has been introduced. The skirmishers and supports have been advanced by a "succession of short rushes." The old form of warfare has completely passed away, and the soldier is taught to approach his foe as the hunter stalks his game, concealing himself when practicable, and hurrying from point to point with as little exposure as possible. At the conclusion of any rush the soldier may find himself in an advantageous position for firing at his enemy. Now, every hunter well knows how hard it is to take a steady aim during a rapid stalk; how much more, then, must it be for one constricted and oppressed with ill-adapted fittings to overcome the trembling of violent palpitation; and must not every shot under such circumstances be but an aimless discharge? Thus, for the most important military reasons, it behoves that attention should be directed to this matter.

Since the opening day of these manœuvres four-and-twenty consecutive hours have never passed without rain, and yet the rate of daily sick has been far lower than that in quarters, even excepting the proportion of venereal cases unavoidably connected with the latter. Admitting that the weaker were excluded from those selected for the camp, nevertheless it shows that men free from any moral depression and well nourished can bear wet and exposure without the development of those catarrhal attacks which are so prevalent in town life, and this would evidently warrant a greater boldness in the ventilation of barrack rooms in which now the purity of the air is so often sacrificed to the desire for warmth and the fear of draughts.

The system for rationing patients during transfer from their regiments to the hospitals at the base of operations is not yet perfect, and some instances of very short commons have occurred. Doubtless the present experience will be sufficient to suggest means of preventing its repetition.

A sense of thankfulness for release pervades all ranks, but if the teachings of the past month profit anything few will regret the price of discomfort now that it is paid.

Near Rugeley, Sept. 10, 1873.

SOUTHAMPTON.

(From an occasional Correspondent.)

ON Saturday, Sept. 6th, a sailor belonging to one of the South-Western steamships fell into the mud at Havre. He was soon picked up, and performed his duties on the voyage to Southampton. On Monday he left the latter town for Cherbourg. On the passage out he was taken ill with vomiting and purging, described as like water. This soon became so violent that he was removed to his bunk. His illness continued during the return of the vessel on the following day. On Wednesday morning, directly the ship arrived, the man was conveyed in a cab to the Royal South Hants Infirmary, the porter being informed it was an accident. On admission into the waiting-room the patient was found to be in a state of collapse, with cold surface, shrivelled hands, sunken eyes, whispering voice, and imperceptible pulse. In two hours he died, during which time he was seen by five of the medical and surgical staff, who pronounced it a case of Asiatic cholera. The officer of health, the mayor, and the coroner were at once communicated with. Everything was disinfected, and the body buried the next morning. At first the authorities denied the diagnosis. The Privy Council were then informed of the facts, and at once sent down an inspector. He advised

that all ships arriving from France should be inspected before landing. The authorities have instructed the quarantine officer to do so. It is to be regretted that this was not done earlier.

Southampton, September, 1873.

PARIS.

(From our own Correspondent.)

CHOLERA has made its appearance in Paris. As is always the case under such circumstances, it is difficult to state the exact date of the first few cases. On Sept. 2nd, the Academy of Medicine, in connexion with a report which had just been sent in on the epidemic of Havre, declared that they could not ascribe a decided character to any cases hitherto observed here, and concluded that it could not be stated that real epidemic cholera existed in Paris. It is from Sept. 5th that the Academy of Medicine, the Council of Hygiene, and the municipal authorities date the appearance of the epidemic. The official figures brought since then before the Academy run as follows:—In town, Sept. 5th, 6 deaths; Sept. 6th, 10 deaths; Sept. 7th, 7 deaths; Sept. 8th, 10 deaths; making in all 34 deaths. The 11th arrondissement of Paris, that of La Roquette (near the cemetery of Père la Chaise), had, at that date, suffered the most; it included 8 deaths out of the total 34. During the same period 47 cases had been admitted into the hospitals, out of which 25 deaths had occurred. These data were furnished on Tuesday, Sept. 9th, to the Academy by Dr. Delpech, Member of the Public Committee of Hygiene.

On Saturday last the municipal authorities published their weekly bill of mortality, bringing down the official statement of the course of the epidemic to the date of Friday, the 12th. The deaths from cholera are therein stated to have been 107 from the 5th to the 12th; but it is important to remark that at the same time the weekly bill includes the following statement: Choleriform diarrhœa of children, 25 deaths, and infantile cholera 43.

In an important document brought before the Medical Society of the Paris Hospitals on Friday, the 12th, Dr. Besnier, who generally reports on the medical constitution of the hospitals, stated the numbers of cases and deaths which had occurred in the various hospitals from September 4th to the 11th, and which he had drawn from the most authentic sources—namely, the registers kept by his colleagues of all the various hospitals of Paris. The first cases of cholera observed in the hospitals, according to that most valuable account, occurred on Sept. 4th, and were observed at the Hôtel Dieu and Hôpital St. Louis; on the 5th La Pitié, La Charité, Lariboisière, and La Salpétrière registered cases; on the 6th Beaujon followed; and on the 7th Necker. From Sept. 4th to the 11th the cases entered at the various hospitals were as follows:—Hôtel Dieu, 19 out-patients, 2 in-patients; Pitié, 3 out-patients, 1 in-patient; Charité, 8 out-patients, 4 in-patients; Saint Antoine, 4 out-patients; Necker, 4 out-patients; Beaujon, 2 out-patients, 1 in-patient; Lariboisière, 10 out-patients, 7 in-patients; Saint Louis, 4 out-patients, 10 in-patients; Aged Women, 2 out-patients. Out of the total number of the above figures, namely 81 cases, there were 49 deaths, 3 dismissals, and 29 cases yet under treatment on the evening of the 11th. On the morning of the 12th the 29 remaining cases still figured on the day's return, and the new cases entered during the day were as follows:—Hôtel Dieu, 3 out-patients; Pitié, 1 in-patient; St. Antoine, 1 out-patient; Necker, 1 out-patient; Beaujon, 1 out-patient, 1 in-patient; Lariboisière, 2 out-patients, 3 in-patients; St. Louis, 1 in-patient; total, 14 new cases, with only 8 out cases. Adding the 29 cases from the 11th, the total would be 43, with 2 dismissals, 12 deaths, and 14 cases remaining on the evening of the 12th. I need not call your attention to the interest of these figures. It would be certainly premature to draw conclusions therefrom, and Dr. Besnier, the reporter, has carefully abstained from doing so; yet it is scarcely possible not to notice that they point to the benignity of the epidemic.

This leads me to remark on the opinion which is generally entertained among the public at large and in professional circles as to the mild character of the epidemic. At first, of course, there was the usual alarm among the people; but the reassuring accounts of the cause of the epidemic soon brought comparative tranquillity. It seems now that little notice is taken of the existence of the disease here. People go about; none of the general features of a sad event or of public consternation are to be observed; scarcely anyone has left town, and people are daily returning from the country. Whilst making full allowance for future contingencies, such as a sudden outbreak of great intensity, and perhaps a temporary lull due to atmospheric influences, and which, possibly, may extend through the winter and be followed next spring by a renewal of the disease, yet the profession here takes a most favourable view of the epidemic, some styling it, in published articles, a mere accident or a *simple bouffée épidémique*.

As to the questions of etiology, premonitory symptoms, treatment, &c., they are as vexed as ever, and do not seem near a solution. M. Guérin and a certain number of other medical men, but especially M. Guérin, who is the great champion of the theory, stoutly uphold that the epidemic has not been imported, that it has been born *sur place, in situ*; that it has grown out of the development of cholera nostras or sporadic cholera, aided by conditions of atmosphere, season, alimentation, &c. A far greater number, however, contend that there exists an Indian cholera, or severe epidemic type of the disease, which is imported, and that the first few cases here were brought from the very many foci of infection which existed all around France, and especially at Havre and Rouen. There is no doubt that when once the disease existed at Havre and Rouen, it seemed an earthly impossibility to prevent it from spreading to Paris. What ought to have been attempted, and what it appears was not attempted, was to keep the ports clear from cholera or endeavour to stamp it out from Havre as soon as it was observed. But it seems that the local authorities were asleep there. I cannot venture to say how far the medical men or societies of Havre are free from similar blame. At all events, they now loudly complain, and with evident justice, that the local council of health at Havre is subordinate to the administrative authorities; that they cannot even meet without being convened by the sub-prefect, which is singular and preposterous in the extreme; that all the local sanitary regulations as regards, for instance, quarantine among other things, require urgent reform, since they contemplate the benefits of commerce and not the wants of public health; and that cholera would not have been imported but for these shortcomings and impediments. Be that as it may, there is no doubt that the cholera had got a good way on before sanitary measures were generally taken. As much may be said in reference to Paris, but I will shortly return to this special subject.

The two other points to which I alluded just now as still obscure, and giving rise to great difference of opinion, are premonitory symptoms and treatment. In respect to premonitory symptoms, by which I mean of course preliminary diarrhœa, two distinct opinions exist—M. Guérin and the majority of medical men here upholding the opinion that cholera is invariably preceded by gastric disorders of some kind, and may be cut off in the germ; whilst others believe that the disease may set in without any previous symptoms. Respecting the epidemic at Havre, for instance, the above two theories are strikingly illustrated: M. Lecadre, the head reporter on epidemics, asserting strongly in his report to the Academy that the epidemic was a development of cholera nostras, and that all the cases were preceded by diarrhœa; whereas Drs. Dreo and Marguerritti, of Havre, absolutely assert the contrary. As much is now said in relation to the present epidemic here.

As regards treatment, of course little can be as yet said; stimulants externally, the wet sheet, ice, and stimulants internally, tannate of quinine, opium, chloralum, carbolic acid, iced champagne, &c. &c., being used according to cases and circumstances. No specific has as yet been advocated. The elimination theory, with the consequent purgative treatment, numbers very few adherents.

In addition to my remarks about the adoption of sanitary measures, I may say that it is only since the outbreak that the streets have been largely cleansed and watered, the sewers disinfected, &c. It was only after the first official

reports of the existence of cholera that the Committee of Hygiene was convoked. It is now said that visits will be made to houses where cases have occurred, and that a code of sanitary precautions will be published for the benefit of the public.

The health of the army is reported to be excellent at present. Until now (or rather until September 12th) the choleriform manifestations observed in the various barracks in town or encampments around Paris were not more marked or numerous than is always the case at this season of the year. During the month of August the chief military hospital here, the Val de Grâce, did not receive one case of sporadic cholera—rather common in that month. During the last eight days about fourteen soldiers have been admitted with various choleriform phenomena, only one ending badly.

Up to the date of September 15th it has been computed, though of course without any official character, that the number of deaths due to the epidemic is very nearly 130, taking both town and hospitals. Latest intelligence from Rouen mentions that for the week ending September 13th, there had been sixteen deaths in town, nine at the Hôtel Dieu (healthy quarter of Rouen), and seventeen at the Hospice General, in all forty-two; the total for the preceding week had been ninety-five. As to Havre, the journal of that city reports that from August 1st to September 12th, out of a population of about 100,000, there occurred 698 deaths, out of which only 179 were ascribed to the epidemic. Moreover, the cases are getting daily less numerous.

The Assistance Publique, or general administration of the Paris Hospitals, has just published its budget for 1874. The total amount of expenditure appointed for the year, namely, 28,150,000 francs, brings out the fact of the extraordinary importance of this administration. In the beginning of the year the amount fixed upon had been only about 26 millions and a half (francs); but nearly two additional millions have recently been voted through the general rise here in all the necessaries of life. The number of beds to be supported in 1874 will be 20,161; of which 9311 are for the infirm and aged, 8227 for patients, and 2081 for lunatic subjects.

It is reckoned that the number of individuals admitted into the hospitals, or assisted by the administration, will be about the same as during the present year. The number of patients admitted was this year 110,99; whilst 192,000 individuals received help in various shapes from the administration. Besides the above figures, the Assistance Publique has 8601 lunatic patients in the various asylums of the department of the Seine or of France, and 26,000 infants or young children that it helps to bring up in the country. The total number of individuals of all categories succoured yearly by this vast administration of the Assistance Publique thus reached 338,200.

The Minister of Agriculture and Commerce has just published a decree by which the regulations voted in September of last year in order to prevent the invasion of cow-plague, have been repealed. This measure has been adopted in consequence of the cattle disease having disappeared from North Germany. A reserve is stipulated, however, for the introduction into France and the transit of animals of the bovine species belonging to the grey race, or that of the steppes. The frontiers are also closed against the skins or other parts of such animals. As to Russia, Austria, Hungary, and the Danubian principalities, cattle of all sorts coming from those sources are prevented from crossing the French frontiers.

On the 8th of next month there will be a general congress here of the Societies for the Protection of Childhood throughout France. They are already very numerous, and no doubt their general meeting will be an interesting one. The sittings will take place in the large amphitheatre of the Academy of Medicine. Several questions have already been put down for future discussion. Among the chief of them are to be noted:—1. Examine the different propositions relating to the protection of childhood in France, and draw up, in the name of all the existing societies, a project of law which will be submitted to the National Assembly. 2. Define the exact *rôle* of societies for the protection of childhood. 3. What are the practical means of extending these societies as rapidly as possible through France? 4. On the means of generalising the institution of *crèches*, and, in connexion therewith, compare the advantages and inconveniences of *crèches*-asylums or home-*crèches*.

The importance of French mineral waters is such that a special commission has been appointed by the National Assembly for the purpose of investigating and reporting on all the questions relating to the matter, some of which it seems require urgent reform. So much interest is attached to the proper solution of these questions that the sittings of the commission have been suspended for some weeks to give time to the President, M. Gauthier de Rumilly, to gather all the documents that exist abroad on foreign mineral waters, their organisation and administration, so that nothing that can help to elucidate the subject may be neglected. The grand vexed question that will occupy most of the time and attention of the committee will be that of deciding whether the present system of having inspectors at each thermal source, officially appointed by Government, should be maintained. As I wrote in a preceding letter, much interest is brought to bear on both sides; the inspectors already in power choose to remain and claim in favour of the value of the present institution; the medical men at the waters who are not inspectors contend that it is a monopoly and cannot be put up with. There is much to be said upon both sides, but there is no doubt that some kind of inspectorship *is* necessary in order to see that the commercial part of the thermal water proceedings is honestly carried out; I mean that the waters are absolutely pure and are exported so from the establishments or sources. Among the other questions to be decided upon are the following:—Property of the various sources to be respected in foreign countries; expedition and sale of the waters, &c.

A society of temperance, to restrain the use of spirits, has recently been founded here, and has begun by proposing a prize of 1500 francs for 1874, and of 500 francs for 1875. The question for 1874 is thus stated:—Determine by the aid of chemical analysis, clinical observation, and experimentation the analyses and differences which, in the twofold respect of their composition and effects upon the organism, exist between spirits of wine and alcohol of all other origin sold in the commerce of drinks and liqueurs. The second question is simply to draw up, in good popular style, a code of advice to the public on the dangers of abuse of alcohol and the advantages of temperance.

Nélaton is still in the same condition, after several alternations of better and worse. His friends have lost all hopes, on account of the gravity of his disease and symptoms. His debility is extreme, and, unfortunately, any remission of bad symptoms can only be temporary.

Paris, Sept. 16th, 1873.

Obituary.

GEORGE FABIAN EVANS, B.A. & M.D. CANTAB., F.R.C.P. LOND.

THE medical profession of the Midland district has just lost one of its most distinguished members. Very rarely has it fallen to the lot of a provincial physician to occupy so great a place in the estimation of his brethren and of the public as that held for so many years by the late Dr. Evans. It is well known to those best able to judge that the position thus gained was no matter of accident, no affair of "gilded saloons and embossed cards," no question of manners, family connexions, or special tact. It was simply the result of superiority of knowledge, exactness of inquiry into the facts of disease, an early appreciation of important advances in the medical art. It became obvious to Dr. Evans's friends about two years ago that his health was failing, though he pursued his daily work with scarcely diminished ardour. In the course of last summer a very suspicious tumour made its appearance in one of his feet; this was skilfully removed by his eldest son, under the advice of Sir James Paget. As early as the month of August in the same year, indications of cancerous infection of the upper parts of the body became apparent. Notwithstanding such serious manifestations of fatal disorder, the doctor worked on through the winter into the spring with

so much calmness that some of his most intimate friends were unaware of the change taking place in his constitution. In the month of May he summoned to his aid three attached friends—one of them an old and valued surgical colleague at the General Hospital, the other two physicians who had early contracted the deepest regard and admiration for him when united in official relations in the same institution; but all his medical advisers concurred in looking on his malady as hopeless, even before the patient himself was entirely convinced of it. With the beginning of the last month the symptoms of vital exhaustion became marked, and the downward progress rapid. It was no surprise to those engaged in watching the sufferer that these symptoms were followed by collapse, in the midst of which he peacefully passed away on the 31st of August, in his sixty-seventh year. Thus another eminent Birmingham physician, a worthy follower of Ash, the Johnstones, Male, Withering, and Darwall, is now to be numbered among the great ones of the past.

Dr. Evans was the second son of the late Mr. Evans, of Belper, himself a highly distinguished surgeon, who brought up a family of twelve children in such a manner as to deserve their lasting gratitude. He sent three of his sons to Cambridge, of whom the eldest took a double first degree, and was for many years head-master of a northern school; the second, Dr. Evans, became a wrangler; the third attained the highest distinction as a scholar, is now professor of Greek at the University of Durham, and one of the foremost Grecians of the day. The other three sons became surgeons, one of them attaining an important position in Derby, while another is now carrying on the paternal practice, after having taken the degree of Bachelor of Medicine at the University of London. This admirable father was not, however, satisfied with sending his son (the future physician) to Cambridge, but had previously lavished upon him the best medical education. After his pupilage to himself for a certain term, he sent him to Dublin for eighteen months, in order to place him in the class of the late Pro-Macartney. He then wrote to Laennec, asking him to take his son into his house as a private pupil. This, however, was impossible, for the renowned discoverer of auscultation was himself dying of one of the diseases with which his name will be ever connected. But with rare prescience he persisted in sending his son to Paris, that he might there study, at the fountain-head, those new modes of investigation which were beginning to change the whole aspect of medical science. We believe that his stay in that city was little short of his Dublin sojourn. Yet more was thought to be necessary for a complete education, and he was sent to St. Bartholomew's Hospital in London. He worked here mainly in the wards of Dr. Latham, himself a celebrity in the same class of diseases on which the genius of Laennec had just shed so much light. Dr. Evans always considered that he was deeply indebted to Dr. Latham's friendship. It was he, in fact, who strenuously advised him to practise as a physician and to seek a degree at Cambridge. Everyone knows the difficulty with which distinction is obtained at the University when it is sought many years after the completion of school life. When it is considered that Dr. Evans had passed through a long period of varied medical instruction after leaving school, it is no small testimony to his capacity and industry that he succeeded in getting placed in the first class of the Mathematical Tripos.

After such a career, thus educated, it is no wonder that success came as soon as he resolved upon the place wherein to practise his profession. He was, in fact, on the topmost level of medical knowledge, and was a cultivated gentleman. There is no quarter which has too many of such men. With or without an opening, as it is termed, they find their way to the top as surely as water finds its level.

Many will remember the general interest taken a few years back in the testimonial presented to him for the purpose of commemorating his long service at the General Hospital. The committee engaged in this work requested the chairman, the Hon. and Rev. G. M. Yorke, to write an inscription for one of the pieces of which the testimonial consisted. We here transcribe it, as it includes a just description of the doctor, and of his action in relation to that testimonial:—"To George Fabian Evans, M.D., F.R.C.P., for thirty-four years physician to the General Hospital, Birmingham, and 'beloved physician' and generous friend of many households, this salver is presented in order that there may remain in the possession of his family a proof of the high esteem in which he is held by men and women of all classes of society in the borough of Birmingham and the neighbouring countries, who, to the number of 420, in order to provide a suitable testimony to his many virtues, contributed a sum of money, the greater portion of which he has devoted, with that noble generosity that forms so large a feature in his character, to the founding of a medical library, keeping this small portion only for himself and heirs, in memory of the affection of his friends."

Dr. Evans did not ignore the value of early discipline and high culture as a preparation for the study of medicine. He was convinced, with Radcliffe, "of the value of the education of the scholar and the gentleman to the thorough-bred physician." He well knew, as Celsus affirmed, that this discipline of the mind, "quamvis non faciat medicum, aptiorem tamen medicinæ reddit." But he believed that scholarly acquirements must be confined to the early epoch of the physician's life, and that subsequently his whole thoughts and studies must be given up to his calling. He considered it a vain effort for the greatest intellect to try to keep up with the advance of the medical sciences, and to maintain a considerable knowledge of letters in general. It seems to us impossible to deny that his views on this point were just. The time is past when a great physician could also be a really eminent scholar. It was possible for a Linacre, the founder of the College of Physicians, to boast that he was the first Englishman who could read Aristotle and Galen in the original; for a Caius, who gave his name to a Cambridge College, to read Greek lectures at an Italian University; for a Mead, the inheritor of Radcliffe's ascendancy, to be the finest scholar of his time, though Conyers Middleton, Bishop Warburton, and Dr. Arbuthnot were his contemporaries; for a John Johnstone, of our own town, even in the last generation, to be no unequal rival of his friends—Parr of Hatton, and Butler of Lichfield. But in these days any man who attempted such a range of study would be likely to be thought, and to be spoken of, as a physician who knew everything but physic. Such a criticism could not fail to be just, for the time engaged in actual practice leaves all too little leisure for necessary study of the science of medicine in its manifold relations to every phase of life, as that science is now developed.

We are forbidden to touch in these columns on the life and character of Dr. Evans otherwise than as he stood before his fellow-citizens in the capacity of an eminent practitioner of his art, and as a valued public officer. Many will read these allusions to him who know how much more to his honour might be added; how much might be said of his kindness, his never-failing sympathy, his good deeds to all who had any claims on him, and to many who had no claims. It will, doubtless, appear to these readers that how much soever may be stated to his credit as a great physician, much more may be said of him as a good man.

JOHN ADAMS BOLTON, M.D. ST. AND., L.R.C.P. EDIN., M.R.C.S. ENG., L.S.A., LEICESTER.

DR. BOLTON died, in the forty-sixth year of his age, on the 15th inst., at Belgrave-gate House, Leicester. For some time past his many friends have witnessed with much pain the shattered condition of his health. About a fortnight ago he became much worse, and his illness, as we have said, terminated fatally on the 15th. The son of a medical man, the late Mr. Bolton, of Ilchester, in the county of Durham, the brother of several medical men, he seemed to belong to the medical profession, which he practised with great enthusiasm. He was one of those happy practitioners that have a good opinion of the medical art. He believed in remedies, and though he had a profound regard for the old lines of practice, he was always open to new light and sanguine of the success of treatment. He was especially ardent in his belief in the utility of the Turkish bath. He erected one in Leicester, and for a long period spent much of his time in it, watching its effects on every variety of complaint. He was one of the kindest and most generous of men, and though not without failings, he will be much mourned for, not only by his widow and

children, but by a large circle of relatives and friends, any of whom he was ever ready to help with a friendly heart and a liberal hand.

JOHN MILLER PIRRIE, M.D., J.P.

THE lamented death of this gentleman took place at Liverpool on the 16th July, in his forty-eighth year. Dr. Pirrie was widely known in Belfast and adjoining localities, and was deservedly esteemed by all classes of his fellow-citizens, not alone for his medical abilities, which were of a high order, but also for his kind, genial, and friendly disposition. For twenty-five years he was connected with the Belfast General Hospital, and was also attached to the Lying-in Hospital as consulting physician. The funeral was one of the largest ever held in Belfast. Dr. Pirrie leaves a widow and large family to mourn his untimely loss.

WILLIAM BARKER, M.D.

WE record with regret the death of this member of the profession, who died on the 11th inst., at his residence in Hatch-street, Dublin, aged sixty-three. Dr. Barker held the posts of Professor of Experimental Physics to the Royal College of Science, and the Lectureship on Chemistry to the Royal College of Surgeons. The deceased had a high reputation in various branches of medical science, and his funeral was largely attended by the medical community, who esteemed him highly.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 4th:—

Johnstone, Charles Richard, Haxley, Yorkshire.
Vincent, Henry Bird, East Dereham, Norfolk.
Waylen, George Swithin Adee, Devizes.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Brummitt, Robert, Guy's Hospital.
Gwatkin, Owen, Guy's Hospital.

THE library of the Royal Medical and Chirurgical Society was reopened on Thursday, the 11th inst.

SMALL-POX of a bad type is prevalent in Binapoor, Bengal.

THE Grand Duchess of Baden paid a visit last week to the German Hospital, Dalston.

NUMEROUS cases of enteric fever have occurred in the Rhymney valley, South Wales.

THE locusts have done so much damage in Nepaul, India, during the past season, that a famine is imminent.

A CLERGYMAN living at Wolverhampton has just lost a third child from enteric fever, presumably through the agency of infected milk.

WILLIAM GROSIN, ESQ., M.R.C.S., of Wisbech, Cambs, has been appointed a Justice of the Peace for the said borough, it being his native town.

DR. THOMAS P. EDWARDS, late medical officer to the Edenderry Union, Ireland, has received a superannuation allowance equivalent to two-thirds of his salary.

THE inquest upon the body of Amelia Hopkinson, a lunatic patient in Hanwell Asylum, who died after being removed from the St. Pancras Union contrary to the express order of the resident medical officer, was concluded on Monday. The verdict was to the effect that she died from exhaustion brought on by her own act, and the jury expressed their regret that the medical man who gave the certificate for removal did not consult the resident medical officer, and their opinion that in future the certificate of fitness for removal should be taken from the surgeon in daily attendance rather than from the surgeon who only visited a patient to certify as to the state of mind.

GLASGOW MEDICO-CHIRURGICAL SOCIETY. — The first meeting of this Society of session 1873-74 was held in the Faculty Hall on the 5th inst. The following are the office-bearers for the ensuing session:—President: Dr. Robert Scott Orr. Vice-Presidents: Dr. Andrew Fergus, Mr. John Reid. Council: Mr. J. Pollock (Mearns), Dr. R. Renfrew, Dr. George Miller, Dr. T. D. Buchanan, Dr. R. Stewart (Coatburg), Dr. James Scanlan, Dr. Alex. Patterson, Dr. James Dunlop. Secretaries: Dr. Robert Perry, Dr. Joseph Coats. Treasurer: Dr. H. R. Howatt.

DONATIONS &C. TO MEDICAL CHARITIES. — The Royal Hospital for Diseases of the Chest has received a fifth £1000 from "D. P. W." "A Friend" has given, per the Rev. George Shaw, of Belfast, £500 to the Palmerston Building Fund of the Stewart Institution for Imbeciles, Lucan. At the annual meeting of the Salisbury Infirmary, the receipt was announced of legacies of £500 under the will of Miss Waldron, £100 under that of Mr. E. C. Rendall, £100 under that of Mr. T. Brown, and £100 under that of Mr. Stephen Brown. St. Mary's Hospital, Paddington, has received £200 from "R. H.," and £100 from "M. A. B."

THE PUBLIC HEALTH ACT, 1872.

[In the following list the letters "P.S.D." signify Port Sanitary District "R.S.D." Rural Sanitary District, and "U.S.D." Urban Sanitary District.]

Districts, and Medical Officers.	*Salary per ann.*	*Area in Acres.*	*Population.*
Aylsham, R.S.D.—viz.:			
Division No. 1—Mr. Charles H. Perry		10611	
" No. 2—Mr. Thomas Prangley		9788	
" No. 3—Mr. Thomas D'Amant		11323	
" No. 4—Mr. Frederick Little	*...	10998	
" No. 5—Mr. Edmund Reeve		8307	
" No. 6—Mr. Richard K. Morton		6977	
" No. 7—Mr. Hugh Taylor		9476	
Barnstaple, R.S.D.—viz.:			
Division No. 1 } Mr. James Wood Cooke	...†	2346	8408
" No. 4 }		1339	2629
Battle, R.S.D.—viz.:			
Division No. 1 } Mr. Edward Smith	£17	15979	5166
" No. 2 }			
" No. 3—Mr. Frederic Wallis	£30	11311	3616
" No. 4—Mr. Alfred H. Hackney	£7	2850	618
" No. 5—Mr. Walter C. Blaker	£9	4320	641
" No. 6—Mr. Roger Duke	£30	11282	2633
" No. 7—(Included in No. 3).			
" No. 8—Dr. Charles Harris	£10	5719	1079
Beaconsfield, U.S.D.—Dr. Frederick J. Wadd	£10	...	1662
Birkenhead, U.S.D.—Mr. Francis Vacher	£250	1700	47000
Blofield, R.S.D.—Mr. Frank Cufaude	£50	44178	11328
Bromyard: Hereford, Ledbury, Leominster, Weobley, } R.S.D.s—Dr. H. V. Sandford	£300	281442	59215
Chapel-en-le Frith: Glossop, Hayfield, Fairfield, Glossop, } R.S.D.s and U.S.D.s—Mr. Chas. J. Bennett	£300	116068	43536
Dinas, U.S.D.—Mr. Richard Griffith	£10	854	434
Guildford, U.S.D.—Dr. John Morton	£42	531	9106
Pudsey, U.S.D.—Dr. James Farquhar	£40	2400	14000
Ruthin, R.S.D.—Mr. Wm. Davies Jones	£55 till March 25	89400	12500
Rye, P.S.D.—Mr. John A. Woodhams.			
Southwold, U.S.D.—Mr. Francis H. Vertue	£10	560	2155
Swansea, P.S.D. } Swansea, U.S.D. } Mr. Ebenezer Davies	£300‡	5400	54029
Totnes, R.S.D.—viz.:			
Division No. 1—Mr. G. C. Searle	£7 10s.	7576	3078
" " 2—Mr. John P. Stone	£2	1940	559
" " 3—Mr. A. J. Wallis	£3	2910	653
" " 4—Mr. A. J. Wallis	£7 10s.	8403	1801
" " 5—Mr. D. Philipps	£5	7440	1335
" " 6—Mr. J. P. F. P. Hains	£9	10679	2363
" " 7—Mr. J. T. Cape	£7 4s.	8340	1168
" " 8—Mr. P. A. Cornish	£5	11200	1959
" " 9—Mr. Owen Kiernan	£7 10s.	14070	3366
" " 10—Mr. Owen Kiernan	£3 10s.	10180	1449
" " 11—Mr. J. M. Puddicombe	£3	120	400
" " 12—Mr. John P. Stone	£3 15s.	3330	699
Wokingham, R.S.D.—Dr. John Shea	£60	40000	14000
Woodbridge, R.S.D.—viz.:			
Woodbridge Division—Mr. Chas. G. Marshall	£15	23550	9217
Carlford " Mr. G. F. W. Meadows	£15	24894	6723
Colneis " Mr. Geo. W. Tailer	£15	24447	6038
Worcester, R.S.D. } Worcester, U.S.D. } Dr. William Strange	£50 £150	...	33221

* £10 each, and £1 1s. for each Report on examination of premises.
† £1 1s. for each Report, and 1s. per mile (one way) for travelling expenses.
‡ And £1 1s. per visit to ships within a certain limit, and £2 2s. per visit beyond, and expenses of transit.

Medical Appointments.

ADDY, B., M.B., M.R.C.S.E., has been appointed In-door Physician's Assistant at the Royal Infirmary, Manchester, vice Hughes.

BERRY, W., M.R.C.S.E., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Junior Assistant Medical Officer to the Workhouse Hospital, Manchester.

BOODLE, R. M., M.R.C.S.E., has been appointed House-Surgeon and Apothecary to the Essex and Colchester Hospital, vice Thomson, resigned.

BROWN, W., M.R.C.S.E., has been appointed Resident Medical Officer and Secretary to the Brighton Hospital for Sick Children.

CARTER, A. H., M.D., M.R.C.S.E., had been appointed Resident Registrar and Pathologist at the General Hospital, Birmingham, vice Rickards, appointed Resident Medical Officer.

COOKE, J. W., M.R.C.S.E., has been appointed Medical Officer for Districts Nos. 1 and 4 and the Workhouse of the Barnstaple Union, vice Michael Cooke, M.R.C.S.E., deceased.

COVEY, C. E., M.R.C.S.E., has been appointed Medical Officer for District No. 2 of the Alresford Union, vice Hayles, resigned, and since deceased.

CROWTHER, J. E., L.S.A.L., has been appointed Medical Officer for the Stainland District of the Halifax Union.

DAGLISH, R. R., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Brookland District of the Romney Marsh Union, vice Wood, resigned.

DIXON, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the newly formed Harrington District of the Whitehaven Union.

FAVELL, W. F., M.R.C.S.E., has been reappointed a Surgeon to the Sheffield General Infirmary for a further term of seven years.

HARDWICKE, J., F.R.C.S.E., has been appointed Medical Officer of Health to the Borough of Rotherham, vice Dr. Lyson, resigned: £100 per annum.

HARPER, J., L.R.C.P.I., M.R.C.S.E., has been appointed a Surgeon to the North Devon Infirmary, Barnstaple, vice Michael Cooke, M.R.C.S.E., deceased.

HENRY, G. F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Weston District of the South Shields Union, vice Crisp, resigned.

LAW, J., M.D., L.F.P. & S. Glas., has been reappointed a Physician to the Sheffield General Infirmary for a further term of seven years.

LEACH, M., M.R.C.S.E., has been appointed Public Vaccinator for the Park and South Registration Districts of the Sheffield Union.

MACLAREN, J. D., M.D., has been appointed a Physician to the Royal Infirmary, Glasgow.

MOXON, J. B., M.R.C.S.E., has been appointed Medical Officer of Health for the Glanford Brigg Rural Sanitary District: £120 per annum.

PACKMAN, A. T. V., M.R.C.S.E., has been appointed Medical Officer for the South-East District of the Sheffield Union, vice Griffiths, resigned.

PARKER, S., F.R.C.S.E., has been reappointed a Surgeon to the Sheffield General Infirmary for a further term of seven years.

PICKLES, Mr. J. J., has been appointed Assistant House-Surgeon to the Infirmary and Dispensary, Bradford, Yorkshire, vice Conolly, resigned.

PRITCHARD, R. C., L.F.P. & S. Glas., has been appointed Medical Officer for District No. 4 of the Saffron Walden Union.

SAVORY, A. H., M.R.C.S.E., has been appointed House-Surgeon to the Infirmary and Dispensary, Burton-on-Trent, vice Lloyd, resigned.

SHEARMAN, W. M., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Worsley Dispensary, vice Farr, deceased.

SMITH, S., M.R.C.S.E., of Clifton, Bristol, has been appointed Assistant-Surgeon to the Administrative Battalion Gloucestershire Engineers.

SMITH, W. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a Medical Officer to St. Mary's Hospital and Dispensary for Women and Children, Manchester, to attend Patients at their Homes, vice Sinclair, resigned.

TURNER, R., M.B., C.M., has been appointed Assistant Medical Officer to the Blaenavon Iron Works, Pontypool, vice Comrie.

WHITEHEAD, A., M.B., C.M., has been appointed Resident House-Surgeon to the Infirmary, Paisley, vice Cunningham, resigned.

WILKINS, E. W. S., M.R.C.S.E., has been appointed Resident House-Surgeon to the Ripon Dispensary and House of Recovery, vice Wallace, resigned.

WILLIAMS, J. T., M.R.C.S.E. (late Resident Surgeon of Rossall School, Fleetwood), has been elected an Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

Births, Marriages, and Deaths.

BIRTHS.

BLOXAM.—On the 4th inst., at Mount-street, Grosvenor-square, the wife of Wm. Bloxam, M.D., of a daughter.

BUTT.—On the 3rd inst., at Kilburn Priory, the wife of William F. Butt, L.R.C.P.L., of South-street, Park-lane, of a daughter.

GRANT.—On the 7th inst., at Westerton, Huntly, N.B., the wife of R. A. P. Grant, Surgeon Army Medical Department (late 43rd Light Infantry), of a daughter.

HENDERSON.—On the 1st ult., at Darjeeling, in the Sikkim Himalayas, the wife of Dr. George Henderson, Officiating Superintendent of the Royal Botanic Gardens, Calcutta, of a son.

LINDSAY.—On the 2nd inst., at Mickleover, Derby, the wife of J. Murray Lindsay, M.D., prematurely of a son.

LONG.—On the 15th inst., the wife of Mark Long, M.D., of Richmond-road, Dalston, of a son.

WINKFIELD.—On the 7th inst., at Shirley, Southampton, the wife of Dr. Winkfield, of a son.

MARRIAGES.

BLAND—TEALE.—On the 11th inst., at Hoddesden Church, Herts, William Charles Bland, Assistant Medical Officer to the County Asylum, Dorchester, eldest son of John Bland, Surgeon, of Durham, to Ellen Marion (Nellie), youngest daughter of W. H. Teale, Esq., The Rye, Hoddesden.

DICKINSON—PERRY.—On the 10th inst., at St. John's Church, Hensingham, Cumberland, Edward H. Dickinson, M.A., M.B., to Annie, daughter of the late Henry Perry, Esq., of Keekle-grove, near Whitehaven.

GRIFFITHS—ALISON.—On the 4th inst., at the Parish Church, Donegore, W. Handsel Griffiths, Ph. D., L.R.C.P.Ed., L.R.C.S.Ed., Librarian to the Royal College of Surgeons in Ireland, eldest son of the late John Waters Griffiths, Esq., of Waterford, to Lizzie Smythe, only surviving daughter of the Rev. S. Smythe Alison, of Parkgate, County Antrim.

MACLACHLAN—PATON.—On the 9th inst., at Alloway-place, Ayr, William Maclachlan, M.D., Surgeon, Dalmellington Ironworks, to Katharine Wilson, youngest daughter of Robert Paton, Esq.

LYONS—ELWELL.—On the 4th inst., at the Parish Church of Wednesbury, Alfred de Courcy Lyons, M.R.C.S.E., to Carew, youngest daughter of the late Edward Elwell, Esq., of the Forge, Wednesbury.

QUAIFE—DAVY.—On the 17th of June last, at the residence of the bride's parents, Frederic Harrison Quaife, M.A., M.D., of Woollahra, Sydney, New South Wales, to Esther, third daughter of A. Davy, Esq., of Harrington-park, Narellan, New South Wales.

MAXWELL—ASHBY.—On the 9th inst., at the Parish Church, Hove, Brighton, Theodore Maxwell, M.B., B.Sc., L.R.C.S.Ed., Medical Missionary, Church Missionary Society, to Elizabeth Eyre, second daughter of the late John Eyre Ashby, LL.D., of Enfield.

DEATHS.

ANDERSON.—On the 25th ult., at Little Meldrum, James Anderson, a Medical Practitioner for the last sixty years.

ANDERSON.—On the 9th inst., Edward Anderson, M.D., of Monkstown, aged 30.

CREAN.—On the 8th inst., M. J. Crean, M.D., of Stoke-upon-Trent, aged 38.

JONES.—On the 12th inst., at Compton-park Villa, Plymouth, Devon, Eleanor, the wife of Dr. C. Marchant Jones, formerly of Amoy, China, aged 35.

JUCKES.—On the 8th inst., Chas. Juckes, M.R.C.S.E., of Cosford Grange, Shifnal, Shropshire, aged 54.

LYFORD.—On the 10th inst., H. Giles Lyford, M.D., of Brighton, late of Winchester.

MORRIS.—On the 26th of Aug., Trevor Morris, jun., M.D., of Ashby-de-la-Zouch, aged 47.

PAYNE.—On the 16th inst., at Maida-vale, Chas. H. Payne, M.D., late of Wimbledon.

PENNELL.—On the 12th inst., R. Lewin Pennell, M.D., of Cheriton Bishop, aged 80.

Notes, Short Comments, and Answers to Correspondents.

MEDICAL TEACHERS.

WE regret that the names of the following gentlemen were inadvertently omitted from the list of Medical Teachers published in the Students' Number of THE LANCET:—

Mr. Hanbury, M.A., 24, Old-square, Lincoln's-inn.
Dr. Coales, LL.D., M.A., 119, Gower-street.
Mr. Robert Bacon, B.A., 341, Camden-road, N.

For particulars, personal or written application should be made.

Messrs. Arnold and Son's (Smithfield) communication shall receive early attention.

THE FEVER IN ST. MARYLEBONE PARISH.

To the Editor of THE LANCET.

SIR,—Perhaps the following facts, which happen to be confined to the knowledge of myself and a few others, may appear to you worthy of publication, as possibly affording the real clue to the origin of the above epidemic.

Six winters ago I came to live in the house I now occupy in Marylebone parish. My predecessor and the surveyor I employed both assured me that the drainage was perfect; indeed a large sum had just been expended in repairs upon it, for which my pocket was taxed. Nevertheless, with the advent of warm weather, an unpleasant smell was unmistakably perceived in the lower rooms, and it was found to issue from the crevices between the flags in the basement floor. By-and-by the nuisance became intolerable, and I had some of the stones taken up, when a horrid discovery came to light, which may be briefly described by stating that in the course of half a century the main pipe leading to the sewer had given way, and the entire space beneath the kitchen and pantry had been doing duty for a cesspool for an unknown length of time. Shortly afterwards the same inquiry, with the same result, took place the next door but one from mine, my neighbour taking the hint from my experience. Again, only a few weeks ago a friend, who has lately come to live in another part of the parish, informed me that he was annoyed with a foul odour pervading the air of a small room on the basement floor, and though assured by house-agent, surveyor, and all, that he must be mistaken, he insisted on having the floor removed. It proved to serve as a cover for an old cesspool, which had been so long disused as to have passed out of memory.

The moral I intend to convey is, that no dweller in this parish ought to rest satisfied with the report of any persons, however well qualified to give an opinion, as to the efficiency of the drainage on his premises, unless he has ascertained that they have made a thorough investigation. Most of these houses date, I believe, at least as far back as mine, many much farther, and to my apprehension the wonder will be, not that the lowermost pipes shall in many instances be found to be "non-conductors," but that they shall have been able to maintain their continuity under a heavy and ceaseless "pressure from within" for so many years.

Here I cannot refrain from calling attention to a curious peculiarity in the character of the facts just noticed. They may be universal—that is, every individual householder may have a cause of fever in the shape of defective drainage within his own doors. And yet the philosopher, having no right to explore them, and taking for granted that their existence would not be tolerated in the houses of the rich, sends his imagination abroad in search of some agent which shall appear capable of importing the disease. But the particular facts just stated may be allowed to justify one of the few to whom they are known in throwing out a suggestion that, not impossibly, if due inquiry be made, the real *fons et origo mali* may be found to exist at home.

I am, Sir, your obedient servant,

London, September 8th, 1873. CONSILIUM DOMI.

GUY'S HOSPITAL SCHOOL.

OUR notice last week of the changes in the staff of the above school was, it appears, not quite complete. It should have been mentioned that Dr. Paul Henry Stokoe has succeeded Mr. Johnson in the chair of Botany.

A Young Practitioner.—Dr. Eustace Smith's work on the Wasting Diseases of Children; Dr. Condie's Practical Treatise on Diseases of Children, fifth edition; and Mr. Holmes's work on Surgical Diseases of Children; or that by Guersant, translated by Dr. Dunglison.

Q.—No. A certificate of lunacy is not valid if the two medical men signing it are associated in partnership, or if one bears the relation of assistant to the other.

THE GROUSE DISEASE.

To the Editor of THE LANCET.

SIR,—I have observed in late numbers of THE LANCET letters from my friend Dr. Howden, Dr. Spencer Cobbold, Dr. Farquharson, and Mr. Vaughan relating to the grouse disease. I may say, generally, that the first two gentlemen incline to the belief that this disease owes its production to the presence of parasites; while Dr. Farquharson considers it to be of the nature of a fever, due to overstocking, and probably contagious. Mr. Vaughan gives the result of various microscopical examinations, and records that he found worms in many of the tissues, principally in the intestinal mucous membrane, the pectoral muscles, and the brain.

The so-called grouse disease is a matter of very great importance, not only to the sportsman and proprietor of moors, but also in a scientific point of view, and it is quite possible that if any definite conclusions could be arrived at in regard to it, a step might be gained in the direction of explaining some of the causes which lead to the epidemics which devastate the herds of our cattle-owners occasionally, and produce such national losses as we unfortunately too frequently experience. At any rate it is worth while to ventilate such a subject in your columns, and some amount of truth, however small, is likely to result.

To say that the stock of game on moors is decimated is to use a very feeble expression. On a hill that I happen to be acquainted with, where 1000 brace of grouse were killed in 1872, there are not at this moment more than eight or ten coveys, each containing probably less than ten birds; and on adjoining ground, where 1500 brace were shot last season, the owner has found it necessary to abstain from shooting this autumn entirely. The birds I have had an opportunity of examining which have died during any of the recent epidemics have invariably, to use a familiar expression, been reduced to skin and bone; their rich and beautiful plumage has been destroyed, and the fine feathering of the legs has disappeared. Some observers state they have occasionally picked up victims in full plumage, plump and well conditioned; but this is so far from being the rule that I apprehend death in these exceptional cases must have been the result of a gun wound or some accident. The appearances I have indicated prove that death ensues after a tedious and wasting illness. A rough inspection of some fifteen or twenty specimens, both diseased and healthy, has revealed the following appearances:—In four found dead during a very destructive invasion of this distemper, which occurred I think six years ago, the deterioration of plumage and emaciation were such and in the same degree as I have just described. The intestinal canal in every instance was filled with tapeworms, and red spots were found at intervals on the mucous lining of the large bowel; a portion of one lung was always in a congested or discoloured condition, and the liver was dark, almost black, and softened. In the early spring of the present year I obtained twelve birds, in which the same appearances were present; but in only three of these was I able to discover any trace of tapeworm. On the 16th of last month I examined the whole of the abdominal viscera of four beautiful and healthy birds which had been shot a few days previously on a very small, low country moor, where no disease existed, and the large intestines of half of them contained tapeworms in as great amount as in those instances where death had ensued from disease. In these, however, the liver was natural, and no red spots could be detected in the intestinal mucous membrane. The last diseased bird I examined, three days since, was picked up dead among the heather, quite fresh, and without a trace of wound. It was inspected with rather more care than any of the former specimens. All the appearances already noted as common to birds which had succumbed to disease were exhibited, along with tapeworms. The liver was particularly dark and soft, not more consistent than a clot of blood. In the substance of the left pectoral muscle there was a discoloured spot, caused by the effusion of three or four drops of blood which had not coagulated, and a mark of the same size and character was observed on the right side of the spine over the angle of the last rib. The heart was pale, flaccid, and empty; the brain looked bleached, and when cut into did not present a trace of a bloody point. In every instance the stomach contained about half a drachm of granules of pure white quartz, and nothing else. I did not examine microscopically any of the tissues of these birds, so I am unable to make any statement in regard to the entozoa discovered by Dr. Cobbold or those seen by Mr. Vaughan. After the first four dissections, and in looking about for some cause for such frightful and wholesale destruction periodically of such a beautiful and valuable fowl as our grouse, I naturally, after finding every bird I inspected stuffed with tapeworms, inferred that in this parasite was to be found what I was in quest of; but after finding that this entozoon was present only in a moderate number of birds killed by disease, and having by inquiry and examination ascertained that it is present in probably as large a proportion of healthy as diseased ones, I was led to consider this view as untenable. The imperfect histories of those I have had opportunities of examining, and which I have just related, induce me to think that the grouse disease bears a considerable—I would venture to say strong—resemblance to purpura or scurvy, and that it arises from the same causes as predispose to the same disease in man—viz., insufficient nourishment, or food wanting some of the elements necessary to sustain life in a healthy condition.

After giving my opinion to the effect that this distemper is the consequence of overstocking, I shall try to give reasons for this statement, and, certainly with much diffidence, offer some suggestions as to measures which might tend to mitigate, if not altogether check, the ravages of a disease which has in recent years been so deadly and destructive in its operations. In the vicinity of my present residence are some grouse moors, inferior to none in Scotland. There are also small patches of heath of a hundred acres (more or less) in extent, situated in the centre of well-cultivated districts, where perhaps, under ordinary circumstances, one bird might be killed for every twelve or fifteen shot on the larger and more elevated moors. These small tracts of grouse ground are perhaps within a single flight of the better stocked and more elevated heath-covered hills. And what is the fact which obtains? It is that disease is almost, if not altogether, unknown on these isolated patches of heath, and that, notwithstanding the condition of the larger moors, more grouse have been killed on these small spots than for many previous years. The power of every piece of ground for bearing and maturing either animal or vegetable life is limited, and, without assistance *ab extra*, commonly support a certain amount of either; and when the arrangements of nature are interfered with by overstocking, she just puts in force laws of a compensating tendency in this as in every other instance of transgression; and what is called periodicity in disease by some appears to me nothing else than this law of compensation coming into play with the object of killing off superfluous numbers when the ground has more life on it than the maximum of its capability of sustaining. On the same principle the famine fever of Ireland has come into operation when poverty and overcrowding have reached their highest point of endurance. Overstocking necessitates want of food, at least proper and necessary food, and I think the remedy for the grouse disease lies in this direction. We need not hint at the administration of medicines. A sick muir fowl is not more likely to use lime-juice or hydrochlorate of iron, although placed within its reach, than a child is to take voluntarily a dose of rhubarb and jelly of such consistence that the spoon stands upright in the mixture.

Sportsmen should kill every season as many grouse as they possibly can. To render this system useful and curative, not only a few, but every proprietor or lessee of a moor ought to do so. If one or two hills in a district are left overcrowded at the close of a season, the birds instinctively emigrate to ground which is less densely stocked, and perpetuate or produce to a certain extent the mischief. By judiciously burning the heather at the usual season to an extent much greater than it is the practice to do, the proper food of the grouse would be much increased. It is unnatural to suppose that the dry ligneous twigs of old heather can afford a sufficiency of proper nutriment to birds of such size and requirements. The young stems and tops, however, which would spring up after burning would yield a sufficient quantity of succulent and proper food for a reasonable head of game, containing among other things that amount of alkaline salts and fresh vegetable acids which would prove sufficient to ensure health to the creatures that instinctively trust in such aliment. It is the absence of such from the food of the bird, or at least the want of a sufficient amount of these salts and acids, which I believe is the cause of the grouse disease.

I am, Sir, yours, &c.,
Fordoun, N.B., September, 1873. DAVID JOHNSTON, M.D.

D. S. P.—The fact, if it be one, is very difficult of proof. We would recommend our correspondent to continue his investigations in the direction indicated, and shall be glad, at the proper time, to receive information of the result.

A Subscriber.—Handbills of the nature enclosed are decidedly objectionable, and derogatory to the profession.

Mr. Kershaw (London Hospital) is thanked.

REMARKABLE MORTALITY AMONGST CATTLE.

To the Editor of THE LANCET.

SIR,—Having read in THE LANCET of June 28th an account of the poisoning of forty-three oxen by *Œnanthe crocata*, and having had serious losses during the last three years, not merely of cattle, but also of horses and sheep, under what I believe to be somewhat similar circumstances, I write to ask you to publish the following particulars, and hope that some of your readers may be able to throw some light on the subject, and be able to account for what hitherto has baffled all investigation, the cause of the death of these animals.

About seven years ago, on one field in a fine grazing district, always considered particularly healthy before, the sheep died by wholesale; and on a post-mortem being made, the only thing found amiss was the mitt or spleen, which was enormously enlarged, or rather, more properly speaking, engorged to about seven times its proper size. The cause of death was attributed by the veterinary surgeons called in to splenic apoplexy. Up to three years ago my adjoining land had always been particularly healthy. Three years ago I lost three or four bullocks from the same cause. The following year it got worse—horses died as well as beasts and sheep. The symptoms with horses are different from those with beasts. Horses swell at the throat and along the neck; a nasty yellow stream runs from the nose, and they appear to have a bad influenza cold. The veterinary surgeons, however, say this is splenic apoplexy; but that horses carry the disease a stage further than beasts, and that it then affects the neck and throat, and finally chokes them. Whatever the cause, death very soon takes place from the time the animal first shows any symptoms. One horse that died last year seemed perfectly well overnight; next morning it was noticed to have what was thought to be a bad influenza cold, and was dead in six hours.

Cattle when first noticed appear dull—in fact, out of sorts; they slobber at the mouth and spue; when roused they look wild and fierce, and become so when urged; they walk stiff, quiver at the flank or loin; stale blood, sometimes dung blood. They rarely live twelve hours from the time they are first noticed, mostly from four to six; they are soon unable to walk, and finally drop down suddenly and die. Sometimes they will chew their cud up to the time of dropping. After death the carcass becomes rapidly putrid. On a post-mortem being made, the only part that seems to be affected is the spleen, which in a 60 stone bullock (14 lb. to a stone), instead of weighing 3 lb., weighs from 15 to 25 lb., and is enormously engurged with black clotted blood.

Several eminent veterinary surgeons have failed to discover the cause of death. Some attribute it to a poisonous herb; others to the animals "doing too well." Most call it splenic apoplexy. I think that death is undoubtedly caused in this case by a poisonous herb, as any animals put in this field for a few weeks die.

Can any of your readers inform me if the water dropwort (*Œnanthe crocata*) in a smaller quantity than in the case on Lord Dunraven's estate would produce this? The symptoms are somewhat similar, though in Lord D.'s case it is not said that the spleen was found to be enlarged.

Should this meet the eye of Dr. Cameron, perhaps he will be kind enough to give us this information. I remain, Sir, yours truly,
September 7th, 1873. A SUFFERER.

P.S.—I enclose my card, and shall be glad to aid in any investigation should any competent gentleman apply to you for further particulars.

A Constant Subscriber.—The theory of the action of chloral is that chloroform is liberated in the blood. Chloroform poisoning and chloral poisoning are, therefore, to a certain extent identical. The power of the heart is lessened in both cases, and one would expect to find signs of death from syncope. It is right to add that the signs after death from chloroform have been very varied.

Mr. J. J. Nightingale, (Market Drayton.)—No.

THE POLLEN THEORY OF HAY FEVER.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me space to make a few observations on the letter of your correspondent, Mr. Wilson, of Birmingham, who complains that I have claimed to be the *originator* of the "pollen-grain theory" of the cause of hay fever, whilst he was the first to give "the true *rationale* of hay fever" in a paper he wrote in 1870.

Up to the moment of my seeing your correspondent's letter I was not aware of the existence of the paper to which he refers. This I regret very much. If I had known of it at the time the chapter on the Causes of Hay Fever was written, I should not have failed to give due prominence to the opinions advanced in it. Those of my medical brethren who have done me the honour of reading my book will, I am sure, acquit me of intentionally ignoring or undervaluing the labours of others, and at the same time they will have seen that I make no claims on my own behalf further than what seem to flow naturally from the course of investigation followed. I am, moreover, not aware that I have anywhere claimed to be the originator of the "pollen-grain theory"; nor can I, after reading your review of my book carefully over, find that the author of the review makes any such claim on my behalf.

As a matter of fact, the credit of being the first to name the true cause of hay fever does not belong either to Mr. Wilson or to me. For the first two or three years after my experiments were commenced (in 1859) I imagined that this honour belonged to me; but when I became better acquainted with the literature of the disease I found that, thirty years before my investigations began, Dr. Elliotson had fixed upon pollen as *the* cause of hay fever. It is, therefore, to him that the honour is due. So far, however, as your correspondent and myself are concerned, I believe I may with justice claim the priority in this matter, for the simple reason that most of my experiments on the action of pollen were made, and the conclusions drawn from them, years before he wrote the paper to which he alludes. I think I can also claim to be the first to have proved, by a long course of carefully conducted experiments, the correctness or incorrectness of the various opinions held on the causes of hay fever, and also to have shown that what was in Mr. Wilson's hands only a "theory" has become in my hands a fact.

Whether an effectual remedy will eventually be found for hay fever I cannot at present say; but notwithstanding the preference Mr. Wilson seems to have for the cotton-wool respirator, suggested by Professor Tyndall, I must confess that after more than twenty years' experience of the disease I have a lingering desire to find a remedy that will altogether rid me of the liability to it; but whether such a remedy is or is not found, I shall have the satisfaction of having done what I could to clear the ground for a fair start in the search for it.

Your reviewer seems to think that I have not tried the plan suggested by Professor Tyndall. I have, however, tried it, and also other plans. For some years I have, in the summer time, had plants throwing off their pollen in one of the rooms of my house; and whenever I have ventured into this room, and have had to disturb the plants, the nostrils and mouth have had to be covered. A thin gauze covering, as suggested by some, is of no use; but a double fold of an ordinary cambric handkerchief I find to be for a time an effectual protection from the pollen. As the handkerchief has to be worn somewhat after the manner adopted by Eastern women, I have never had the moral courage to go about clad in this fashion; but if there are any medical men or any non-professionals who are affected with hay fever, and who have the courage to go abroad dressed in this manner, I can promise them that they will derive considerable benefit from it. The same remarks will apply, more or less, to a respirator made with six or eight folds of crape; but if the patient goes much into the open air, this will require to be frequently renewed, and must as a matter of course be made to cover both mouth and nostrils. The cotton-wool respirator is really not of much use in hay fever. This material answers very well to filter *dry air* by means of an aspirator; but when worn on the mouth and nostrils, the moisture of the expired air soon condenses upon it, and makes it comparatively useless. The question "Have you tried plugs of cotton-wool in the nostrils" has several times been asked me. I have tried plugs both of cotton and woollen fibre, but have always found that the irritation caused by these has been quite as difficult to bear as that caused by pollen.

In conclusion, I have to say that I shall be extremely obliged if Mr. Wilson will give, through your journal, the names of the old authors who have spoken of the pollen of aconite causing irritation when blown into the eye.

I am, Sir, yours respectfully,

Manchester, Sept. 9th, 1873. CHAS. H. BLACKLEY.

Chirurgus.—Richardson's styptic colloid, so efficacious in erysipelas for which it was first devised, is not less so in that form of erythema called intertrigo. It may cause itching; but that unpleasant sensation can be avoided by the addition of Peruvian balsam to the compound.

Subscriber.—Comparisons are odious.

RETURNS OF MORTALITY.

To the Editor of THE LANCET.

SIR,—In reply to an inquiry from "A Medical Officer of Health" on the above subject in your journal of Sept. 6th, I may inform him that this is one of the few towns which has possessed a health officer for some years. The registrar supplies me with the returns of births and deaths every fortnight for presentation to the Board. I have made a calculation for the past seven years, and found that he has received at the rate of threepence-halfpenny for each death return; this has included the register of births, merely the numbers born of each sex.

I am of opinion that threepence for each return is a fair charge; besides, there is always collateral information obtained from the registrars, which is of considerable value to the health officer. I find the forms, arranged in my own way, and the officer fills them in.—Yours faithfully,

Wednesbury, Sept. 9th, 1873. J. C. GARMAN, L.R.C.P. Lond., Medical Officer of Health, Wednesbury.

Mr. T. A. Crackle.—It is not recognised by the Colleges named; and, still more, it is not recognised by the State of Pennsylvania, which has withdrawn the Charters of the University of Philadelphia, which sold its degrees. The law touching death certification is very loose; but where the certificates are signed by the *unqualified*, the registrar is instructed to mark *uncertified* against the registration.

Iota.—We cannot offer an opinion on the matter in the absence of fuller and more definite information.

A Sufferer should consult some hospital surgeon.

Dr. A. E. McKee.—We think our correspondent was right in declining to give a certificate.

Mr. W. P. Scarlett, (Gillingham.)—We cannot forward private answers Our correspondent must consult his usual medical attendant on the subject.

THE HUNTERIAN SOCIETY'S REPORT.

To the Editor of THE LANCET.

SIR,—Can you make room for a few illustrative extracts from the last Report of the Hunterian Society? I ask it on these grounds: The Report for 1871-2 contained such gross mistakes that a revised edition had to be issued. Notwithstanding this, the Council permit the Report for 1872-3 to appear with blunders of which the following are but a sample, and with a punctuation which exhibits a ludicrous ignorance of the use of our ordinary stops. Is it too much to ask that the Reports of our "learned" Societies should be in decent English, and show some knowledge of anatomy and physiology? Perhaps a public notice may produce effect, though private remonstrance has failed.

Examples.

Page 15. "The total number *were* 211."
" 17. "*Of* the 211 cases under the care of the author, death had not once resulted."
" 18. "A patient of his, æt. 71, who whilst walking along the road one evening, a boy knocked *him* violently in the left groin."
" 19. Mr. B. asked "if there was such a thing as functional suppression of the *kidneys*, independently of mechanical obstruction."
" 22. "Just the same symptoms as *was* described."
" Ib. "Another case has been described where ulceration and *salivation of gums* (?) and convulsions and lcterus—*occurring* in a child 2 years old."
" 23. "An Higginson's syringe."
" Ib. "To introduce *or withdraw any fluid into* the chest without the chance of air entering into the thorax."
" 25. "Hereditarilly—42 diptheria."
" 26. Dr. S. "has only seen the heart affected once, and then it was the aorta."
" 30. "If cancer in its incipient stage is proved to be a local affection and that its infection is progressive."
" 46. "The mother of three children, the youngest being 10 months old and was at the breast."
" 47. Dr. P. "does not include rheumatic pains after ague and scarlatina as rheumatic fever."
" 48. "Men's elder children are the offspring of a sounder constitution, his younger ones when his diathesis has become well developed."
" Ib. "Nearly all the direct transmissions of gout *is* from the parental (?) side, women not being subject usually to the disease till," &c.

Your obedient servant,

September, 1873. AN AGGRIEVED MEMBER.

Dr. Devon.—We would refer our correspondent to the article Gangrene in the 15th vol. of the "Nouveau Dictionnaire de Médecine et de Chirurgie, to which is appended a remarkably good Bibliography; also to Feltz, "Embolies Capillaires" (Baillière, 1870) for some experimental evidence bearing on the subject.

Jullien.—He is liable to an action. See a similar case commented on elsewhere in this number.

Mr. C. Carter.—Certainly so. The one set of qualifications are recognised by the Local Government Board as much as the others.

Inquirens.—A copy of the Act may be obtained at Hansard's, Great Queen-street. We cannot reopen the discussion of the question, at least for the present.

CORONER'S INQUESTS.

To the Editor of THE LANCET.

SIR,—I am tempted to trouble your columns with a case which bears upon the vexed question of coroner's inquests.

While acting as house-surgeon *pro tem.* to the Devon and Exeter Hospital, a man was brought in dead, who had been picked up in the street in a dying condition, and who had succumbed before his arrival there. His body was received into the hospital to await the coroner's inquest. This took place in due time. No post-mortem was ordered, and a medical man, who had attended the deceased during his life-time, but who had not seen him for three weeks previous to his death, gave as his opinion that it had resulted from natural causes. Now it appears very manifest to me that my evidence was not taken as it would have involved my making a post-mortem examination to enable me to form any opinion as to the cause of death, and the course pursued was the only loophole of escape the coroner had from the necessity of ordering an examination of the body.

It is a fact familiar to all that cases have occurred, and are constantly occurring, in which, in the absence of an autopsy, medical evidence has shown death to have resulted from natural causes, when it has subsequently been proved beyond a doubt to have been come by by foul means; and though in the case I have reported there was of course no suspicion of any such thing, until post-mortem examinations become compulsory in cases of sudden death such occurrences will be far from unfrequent, and the sole use and object of a coroner's inquest will be entirely frustrated.

I have written this letter, Sir, in the hope that the publication of grievances, which are of almost daily occurrence, will eventually bring about a more satisfactory state of things.

I am, Sir, yours truly,

September 7th, 1873. H. M. ELLIS, M.R.C.S.

Inquirer (County Durham) is entitled to call himself surgeon, but is not entitled to place "Dr." on his card or plate. "M.B., Surgeon," are not sufficient indications of his calling.

H. A. D.—1. Professor Church, of the Cirencester Agricultural College, has published some good papers on the subject.—2. Consult a Medical Directory.

THE CUTISECTOR.

To the Editor of THE LANCET.

SIR,—As the winter session is now fast approaching, I think it may be useful to call attention to the little instrument known as the cutisector, the makers of which are Messrs. Tiedman and Co., New York. The cutisector is an extremely handy and convenient instrument for making *fresh* sections in various skin affections; indeed it was invented principally for this purpose by my friend Dr. Henry G. Piffard, of New York, and whose description of it appeared in the *American Journal of Syphilography and Dermatology*, 1870. By using ether spray the pain is very slight, and the ether hardens the tissue, and allows us to thus obtain a better section. Recently Dr. Piffard has farther improved the cutisector, one of which he was kind enough to send me. With it I have made many sections from patients for microscopic examination, there being always a plentiful supply of material at the Belfast Hospital for Skin Diseases, especially (not to mention others) in one case of scleroderma, which is a rare disease, I obtained good sections of diseased skin. The cutisector is far over Valentin's knife or thin sections made with a razor, in which case the preparation to be examined with the microscope requires to be first immersed in some hardening solution, usually of chromic acid, or imbedded in wax, before a sufficiently thin section can be obtained. The little incision made by the cutisector heals at once, and if it is inclined to bleed I brush it over with some styptic colloid. Of course any thickness of skin may be obtained, as the blades of the instrument can be closed or separated by a screw as required.

I remain, Sir, yours, &c.,

Belfast, Sept. 9th, 1873. H. S. PURDON, M.D.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir James Paget, Henley-on-Thames; Prof. Longmore, Woolstone; Mr. Soelberg Wells, London; Dr. Haughton, Dublin; Mr. Teevan, London; Dr. Harley, London; Mr. Earle, Penrith; Mr. T. R. Phillips, Pontypridd; Mr. J. Ashfield, Buxton; Mr. E. Cowper London; Mr. Hodges, Falmouth; Mr. R. Bowen, Douglas; Dr. Griffiths, London; Dr. Crowther, Alford; Mr. R. Kennion; Mr. Barnes, Liverpool; Mr. Holman, Gravesend; Dr. Stokoe, Peckham; Dr. Rose, Chesterfield; Mr. Denyer, Poole; Mr. R. Walton; Dr. O'Grady, Swinford; Mr. Hansfeld, Redlands; Dr. Munro, Nettlebed; Mr. F. Ensor, Port Elizabeth, South Africa; Mr. Cheaven, Boston; Dr. Long, Dalston; Mr. Gordon, Chiswick; Mr. T. Page, Reading; Mr. J. Handford, Bristol; Dr. Steele, Exeter; Mr. B. Woodgate, Dudley; Mr. T. Morgan, Corwen; Mr. Nightingale, Market Drayton; Mr. Watson, London; Mr. R. Drake, Rainham; Mr. Trumper, Hay; Mr. Snaith, London; Dr. Dowse, Highgate; Mr. Collins; Mr. Wiggins; Mr. C. J. Plumer, Penrith; Mr. Carter, Bedminster; Mr. Colmore; Mr. Evans, Narberth; Mr. Goodchild, Ealing; Mr. Ingpen, London; Mr. Barnard, Morar, Gwallor; Mr. Scarlett, Gillingham; Mr. Wright, Norwich; Mr. Rogers, Wakefield; Mr. Castle, London; Mr. Murphy, Bowness; Mr. Cameron, Chatham; Mr. J. Benson, Carlisle; Dr. McRae, Penicuick; Mr. Allen, Crayford; Mr. Grant, Cannock Chase; Mr. Green, Nottingham; Mr. R. Craigie, Harrow; Mr. Garman, Wednesbury; Mr. Tuxford, Epsom; Mr. Ryley, Lynn; Dr. Hardwicke, Rotherham; Mr. Croker, Navan; Mr. Ruckley, Ipswich; Mr. Allman, Dolgelly; Mr. Vizer, London; Messrs. Killmister and Co., Macclesfield; Dr. Peart, North Shields; Mr. Klallmark, London; Dr. Winkfield, Shirley; Mr. Ellis, Exeter; Mr. Adams, Sheerness; Mr. Allan, Fort William; Mr. W. Berry, Manchester; Messrs. Haack and Rabehl, Berlin; Mr. Webster, Lynn; Dr. Lindsay, Mickleover; Mr. Redmayne, Manchester; Mr. Cumming, Exeter; Mr. Tothill, London; Dr. Black, Glasgow; Mr. Blackley, Manchester; Mr. Maunder, London; Mr. Polton, Barnley; Mr. B. Aytoun, Dudley; Mr. Gray, Accrington; Mr. Kershaw, Stirling; Mr. Neale, York; Mr. Walth, Glasgow; Mr. Porter, Bristol; Mr. B. Mayne, Robertsbridge; Dr. Russell, Glasgow; Mr. Broad, Kettering; Mr. T. Oldfield, Windsor; Mr. Evans, Llantrissant; Mr. Williams, Barrow-in-Furness; Mr. Jacob, Dublin; Mr. Howard, Wigan; Mr. Edward, Boness; Miss E. Faithfull, London; Mr. Warrege, Guildford; Dr. Purdon, Belfast; Mr. T. Cooper, Glasgow; Mr. Hurford, Dublin; Mr. Hansfeld, Bristol; Mr. Wetherell, Windsor, Australia; Mr. Cripps, Rockhampton, Queensland; Dr. Gooding, Cheltenham; Dr. Waghorn, Secunderabad; Rev. C. Driscoll, Hendon; Mr. Hanbury; Messrs. Arnold and Sons, London; Mr. G. Cray, Hunstanton; Mr. Bourne, Leicester; Mr. J. Leigh, Canterbury; Mr. Kenyon, Chester; Mr. Roche, Dudley; Mr. Robins, Clipstone; Mr. King, Sheffield; Mr. Tunley, Mayfield; Mr. G. Rough, Watford; Mr. H. Wormley, Leeds; Mr. Poulton, Hull; Mr. Hemming, Tenterden; Mr. T. Collyer, Hatcham; Dr. MacDonald, Woburn; Mr. Taylor, Bristol; Mr. G. Lawson, London; Mr. Walker, Bradford; Mr. Broad, Worcester; Mr. Tompkins, Hertford; Mr. Kelly, Belfast; Mr. Willis, Bath; Mr. A. de C. Lyons, New Romney; Dr. Gee, Liverpool; Mr. Ellice; An Editor of one of the London Daily Papers; Native Guano Company, London; A Constant Reader; X. Y.; M.R.C.S.E.; An Aggrieved Member; I. V. R. C.; A M.D.; Medicus; Gamma; Humanitas; Alpha; A Young Practitioner; J. M.; A Subscriber; A Sufferer; Consilium Domi; Beta, Newport; H. A. D.; &c. &c.

Croydon Chronicle, Nottingham Express, Leicester Daily Post, Manchester Guardian, Newcastle Daily Chronicle, Melbourne Argus, Indian Medical Gazette, Irish Times, Somerset County Gazette, Wellington News, Hour, Merthyr Express, Staffordshire Sentinel, Margate Gazette, Transactions of the Odontological Society, Wolverhampton Chronicle, Glasgow News, West Londoner, Derbyshire Times, Merthyr Telegraph, Pioneer (India), and *Greenwich Chronicle* have been received.

METEOROLOGICAL READINGS

(*Taken by Steward's Instruments*).

THE LANCET OFFICE, SEPT. 18TH, 1873.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
Sept. 12	29·91	N.W.	55	59	91	68	50	...	Overcast
„ 13	29·86	E.	53	56	98	64	44	0·05	Overcast
„ 15	29·25	W.	51	55	95	62	48	0·18	Overcast
„ 16	29·70	N.W.	50	55	93	62	46	...	Rain
„ 17	29·76	W.	54	58	88	68	49	...	Overcast
„ 18	29·93	W.	51	56	99	65	49	...	Overcast

Medical Diary of the Week.

Monday, Sept. 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations on the Eye, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL.—3 P.M. Expected Operation: Lithotomy.

Tuesday, Sept. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Sept. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. "Dr. Horatio Wood's Method of Mounting Fresh-water Algæ."

Saturday, Sept. 27.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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